



Environmental Report

2017

Japan Display Inc. Group

Management Philosophy

To contribute to the realization of a prosperous society by delivering beauty and excitement to the world's people through leading-edge technology.

JDI aims to contribute to the enrichment of peoples' lifestyles and cultures by developing and delivering to the world beautiful displays which generate surprise and excitement using state of the art technology.

Environmental Policy

Under the management philosophy, recognizing that global environment conservation is one of the most important challenges for humanity, we at Japan Display Inc. group respect people and environment, and aim to contribute to a sustainable society.

Basic policy

- We will continually improve our environmental management system to work to reduce environmental burden, considering lifecycle of our display products.
- We will comply with domestic and foreign legal requirements and other voluntarily accepted requirements.
- We will set environmental objectives or others on the following priority themes and promote activities for their achievement to work for prevention of pollution and protection of environment.

Priority themes

- 1) We will reduce environmental burden of business activities.
We will:
 - 1-1) Promote measures against global warming, energy conservation and effective use of water;
 - 1-2) Thoroughly manage chemical substances and promote their reduction and substitution;
 - 1-3) Promote 3R (Reduce, Reuse, Recycle) activities of wastes.
- 2) We will reduce environmental burden of products.
We will:
 - 2-1) Promote the development of environmentally considered products;
 - 2-2) Thoroughly manage chemical substances contained in products;
 - 2-3) Promote green procurement.
- 3) We will work on activities for conservation of biodiversity and environmental activities at local communities.

To ensure our environmental conservation activities, all employees are communicated on this policy and provided with environmental education thoroughly. Our business partners are also expected for cooperation.

July 1, 2017

Nobuhiro Higashiiriki

CEO, Representative Director and Chairman
Japan Display Inc.

Message from the Management

Thank you very much for your continued support of Japan Display Inc.

From June 2017, we have begun initiatives under a new management system to improve and stabilize profitability. In the small and medium-sized display industry that the JDI Group competes in, market growth is forecast to ease as the smartphone market in developed countries and China matures. Meanwhile, in the smartphone market, as models of smartphones that have global brand appeal are predicted to launch with OLED displays during FY2017, interest in OLEDs is skyrocketing.

The JDI Group is working toward setting up an OLED pilot line that uses highly efficient product methods at the Mobara Plant to establish a mass production technology during FY2017 and plans to mass produce products in the first half of FY2018.

For the LTPS LCD, the new production line at the Hakusan Plant, which has state-of-the-art production equipment and is capable of highly efficient display production, started full-scale operations in December 2016. In addition to continuing with sales activities of LTPS LCDs for high-end smartphones, we will leverage the technological capabilities that we have cultivated to further strengthen sales activities for the non-mobile field such as on-board car displays, reflective displays, and high resolution laptop computer displays.

In the on-board car display industry that we are focusing on as one pillar in the non-mobile field, forecasts suggest that the market will grow through the number of vehicles produced globally as well as the number of displays installed on each car due to the spread of autonomous cars and electric vehicles. In order to meet this demand, the production capabilities at the Tottori Plant, JDI Group's biggest production location for on-board car displays, will be expanded. Moreover, by also setting up an automated assembly line for liquid crystal modules, we plan to streamline new product development.

While the JDI Group will continue production in the small and medium-sized display business, we believe that we have a responsibility as a business that places a significant burden on the environment due to the fact that we use a large amount of energy and resources and emit waste to continue to reduce the burden on the environment when producing displays.

In order to fulfil our responsibilities, the JDI Group has set a numerical target as an environmental policy and important theme for the reduction in emissions of CO₂, chemicals, and waste, and the efficient use of water. Moreover, we are initiating activities to reduce the environmental burden at the production phase company-wide.

Furthermore, under the management philosophy of "To contribute to the realization of a prosperous society by delivering beauty and excitement to the world's people through leading-edge technology," the JDI Group will develop beautiful displays that elicit surprise and excitement with state-of-the-art technology, and by offering these displays to the world, we aim to contribute to the development of people's lives and culture. To realize this management philosophy, we must consider the foundation of people's lives: the environment. The JDI Group will incorporate environmental considerations into the production and development processes, and tackle the creation of innovative products that are compatible with both business activities and the environment that conform to our management philosophy.

We hope for your unwavering support in the future.



Nobuhiro Higashiiriki

CEO, Representative Director
and Chairman
Chief Environmental Officer

Since JDI acquired integrated ISO 14001 certification for its domestic plants and offices, we have promoted our environmental activities under an integrated management system. In FY2016, JDI underwent a surveillance audit and no nonconformity was found. We were recognized as conforming to the ISO's requirements, and the continuance of our ISO 14001:2004 certification was maintained.

Our environmental initiatives have two aspects: the product-related environment and the production-related environment as it relates to production activity.

Regarding the product-related environment, we respond to other countries' regulations and demands from customers pertaining to chemical substances in our products that are listed in REACH regulations and the RoHS directive. Our thorough product environment management starts with confirmation of chemical content at the development/design stage and includes measures to prevent contamination on the production line.

JDI has established standards for products that give due consideration to the environment and are defined as "environmentally conscious products." We see the proportion of environmentally conscious products in our lineup as an environmental target and an indicator of business success, and we are striving to raise our performance.

We will continue these product environment initiatives, which will minimize the risk that JDI's displays pose to the environment.

Next, regarding the production-related environment, respect for the law is the foundation of our production activities, but as our ratio of high-value-added products rises, we are aware that industrial processes multiply and our environmental burden increases. Aiming to reduce JDI's environmental burden, we take FY2013 as the baseline for our medium-term environmental targets and continually reduce inputs of electricity, gas, and other energy, as well as water, and outputs of waste and chemical substances.

In this report, we outline examples of JDI's environmental activities in FY2016. When it comes to global warming, JDI not only acts on its own, but also participates in the industry-wide initiative "Commitment to a Low-Carbon Society" led by Keidanren (Japan Business Federation), and contributes to reaching goals for the electrical machinery and electronics industry.

In FY2017, we plan to acquire ISO 14001 (2015 version), and we are preparing for the system migration. Other JDI initiatives include the indirect comprehension and release of data (Scope 3) from our entire supply chain and our ongoing efforts to improve the reliability of our environmental data, with the goal of raising our environmental management assessment.

We look forward to the continuing support of everyone involved.



Nobuyuki Tamiya

HR & General Affairs Manager
Environmental Management Officer

Contents

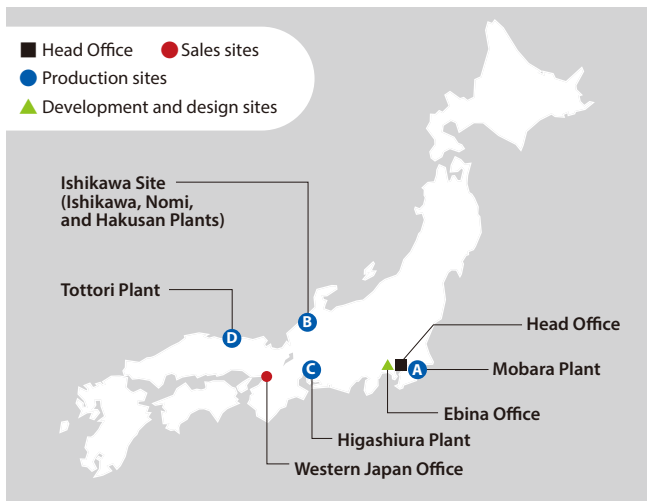
Management Philosophy/Environmental Policy	02
Message from the Management	03~04
Contents	05
Company Outline	06
Product Overview	07~08
Environmental Management Organization	09
Environmental Activity Plans and Actual Performance	10
Environmental Targets	11~12
Environmental Aspects (Environmental Burden)	13
Environmental Audits	14
Environmental Accounting	15
Global Warming Prevention and Energy Conservation Activities	16~17
Waste Reduction Activities and Waste Management	18~19
Initiatives for Minimizing Environmental Risks	20~23
Environmentally Considered Products	24~25
Participation in Exhibitions	26
Ecosystem Conservation Activities	27~28
Communication	29~30
Communication with Overseas	31~32
Legal Compliance	33
Afterword	33



Company Outline

Company name	Japan Display Inc.
Head office address	3-7-1 Nishi-shinbashi, Minato-ku, Tokyo
Start of business	April 1, 2012
Capital	96.9 billion yen
Business content	Development, design, production, and sale of small- and medium-sized display devices and related products
No. of employees	Approximately 13,173 (consolidated, March 31, 2017)

Domestic sites

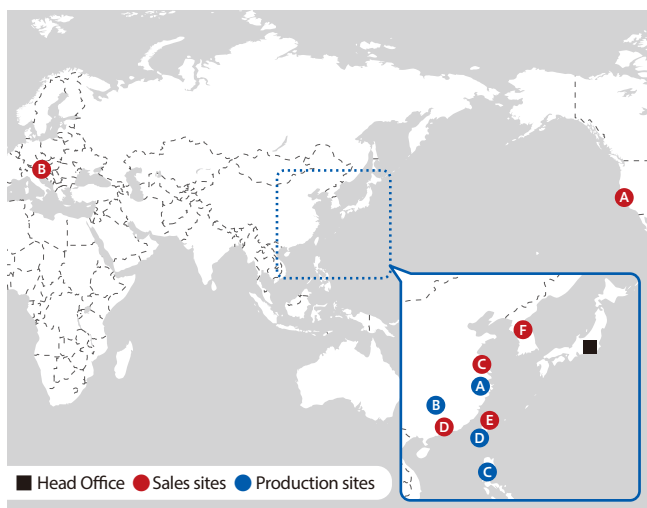


Main production lines by plant

A Mobara Plant	G6 LTPS
B Ishikawa sites	Ishikawa Plant G4.5 LTPS
	Nomi Plant G5.5 LTPS
	Hakusan Plant G6 LTPS
C Higashiura Plant	G3.5 LTPS
D Tottori Plant	G4 a-Si

a-Si: Plants adopting amorphous silicon technology
LTPS: Plants adopting low temperature poly-silicon technology

Overseas sites



Sales subsidiaries	<ul style="list-style-type: none"> A JDI Display America, Inc. B JDI Europe GmbH C JDI China Inc. D JDI Hong Kong Limited E JDI Taiwan Inc. F JDI Korea Inc.
Manufacturing subsidiaries	<ul style="list-style-type: none"> A Suzhou JDI Devices Inc. Suzhou JDI Electronics Inc. B Shenzhen JDI Inc. C Nanox Philippines Inc. D Kaohsiung Opto-Electronics Inc.

Product Overview

To meet customers' wide range of demands, JDI provides the most suitable flat panel displays, like low temperature poly-silicon LCD for ultra-high resolution, IPS for wide viewing angle and high picture quality, WhiteMagic for power-saving, Pixel Eyes for thin and light touch functionality, etc.

WhiteMagic™ and Pixel Eyes™ are trademarks of Japan Display Inc.

For Smartphone, Tablet



Wide variety of LCD modules for mobile applications including smartphone and tablet devices. JDI leads mobile display technologies with thin structure, large screen, high resolution, enhanced optical performance, etc.

Light, Thin & Compact

- Thin structure with integrated touch functionality
- Robustness

Easy to Use

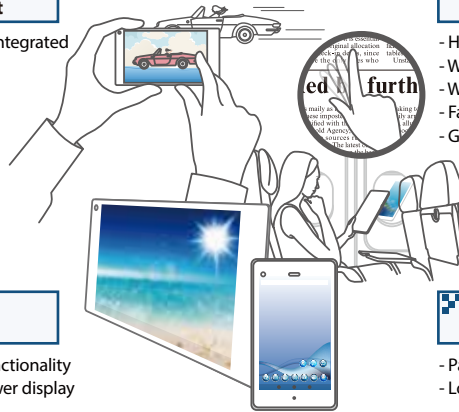
- Integrated touch functionality
- High speed, low power display interface
- Robustness

High Display Quality High Resolution

- High Resolution
- Wide viewing angle
- Wide color gamut
- Fast response
- Good outdoor visibility

Low Power Consumption

- Paper-like display
- Long battery life



Wearable



Color reflective LCD modules for a wide variety of wearable applications, including sports watches, healthcare equipment, and action cameras. JDI's low power consumption technology contributes to long battery life for wearable devices.

Ultra-Low Power Consumption

- Long battery life with memory-in-pixel technology

Light, Thin & Compact

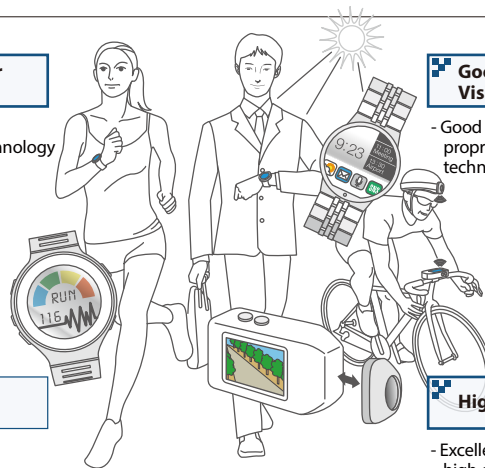
- Robustness
- Narrow border design

Good Outdoor Visibility

- Good visibility realized by proprietary reflective color technology

High Display Quality

- Excellent image quality with high color reflectance
- Videos and movies can be displayed



For IoT Product (Memory In Pixel)



Memory In Pixel (MIP) function is equipped in the color reflective LCD. These LCD modules are suitable for a wide variety of IoT products and application, including outdoor sports gears, medical & healthcare devices, remote controllers, and portable devices. JDI's Low power consumption technology contributes to long battery drive devices.

Ultra-Low Power Consumption

- Long battery life with MIP technology

User-friendly I/F

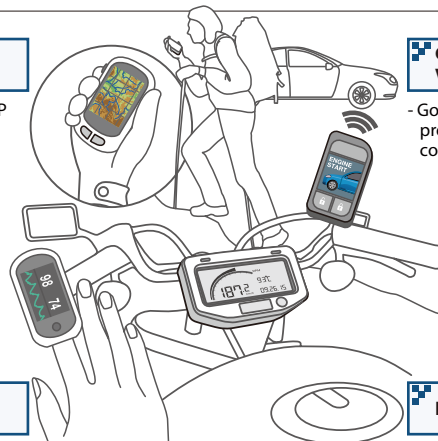
- Serial Peripheral Interface
- 3V Drive

Good Outdoor Visibility

- Good visibility realized by proprietary reflective color technology

High Display Quality

- Excellent image quality with high color reflectance



Automotive



LCD modules for automotive applications, such as car navigation, instrument panel, and rear seat monitor. The products are designed to be reliable and durable in temperature, vibration, and other conditions required by automotive environments.

High Resolution, Easier to Use

- High resolution, large screen
- ScreenFit
 - ▶ Good visibility by optical adhesion of cover glass
- Equipped with touch functionality
- Narrow border

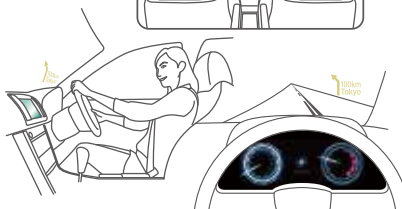


For Safety and Reassurance

- High brightness
- High contrast
- Large screen
 - ▶ Large amount of information
- Fast response
- True black appearance
 - ▶ Interior design styling

Comfortable Space for Driving

- High resolution, large screen
- Wide color gamut
- Display uniformity
- Wide viewing angle
- Thin, light



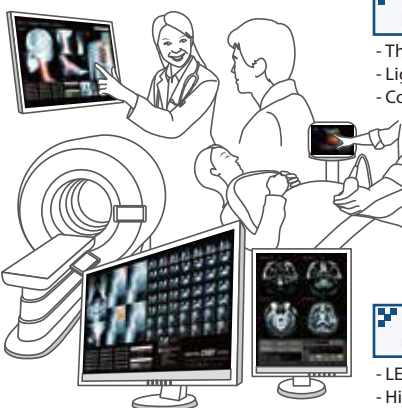
Medical



LCD modules for displaying images and diagnosis, such as PACS, ultrasonograph, mammography, etc. IPS for wide viewing-angle and high contrast provides for accurate screen images. An LED backlight is suited for environmental needs and low power consumption.

Accurate Screen Image High Resolution, High Picture Quality

- Wide viewing angle
- High contrast
- True black
- High brightness
- High resolution
- Low reflectance
- Wide color gamut



Usability Easy to Use, Small Footprint

- Thin
- Light weight
- Compact (narrow frame)

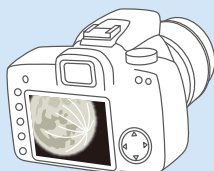
Reliable Quality Calibration, Long Life

- Brightness life
- Brightness uniformity

Environment Low Power Consumption

- LED backlight
- High transmissivity
- Highly efficient backlight

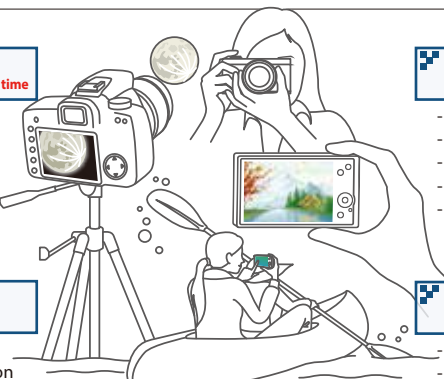
Digital Camera



Landscape IPS LCD modules for single-lens reflex and high-end compact digital cameras requiring displays with high brightness, low power consumption, wide viewing angle and sRGB. Pixel Eyes with integrated touch functionality, and WhiteMagic for good outdoor visibility with high luminance, are also available.

Special Photography Shooting Studio, Night time

- Truck-black
- Black uniformity
- Smooth gradation



Everyday Photography Shooting

- Large screen
- Bright
- Narrow border
- Light weight
- Thin structure

Special Photography Shooting Outdoor

- High brightness
- Low power consumption
- Waterproof
- Color accuracy
- Low reflectivity
- High contrast

Viewing

- Large screen
- High resolution
- High brightness
- High contrast
- Wide color gamut
- Uniformity
- Low reflectivity

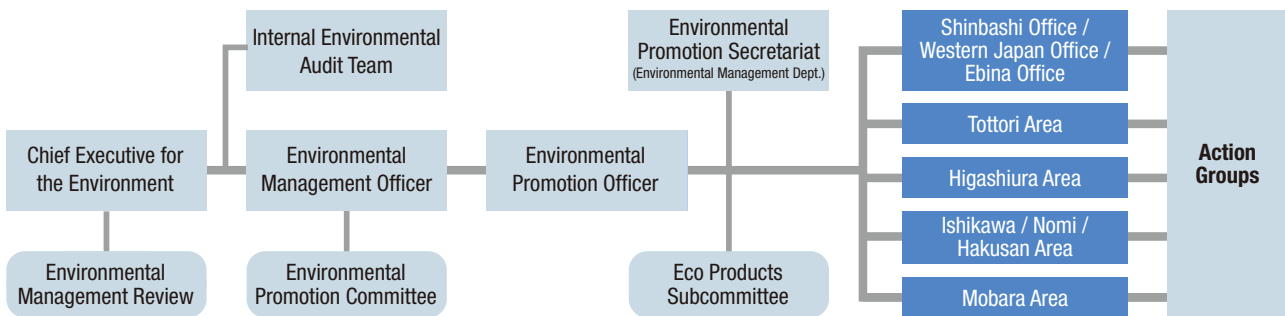
Operating

- Usability
- Waterproof
- Abrasion resistant
- Touch functionality
- Low power consumption

Environmental Management Organization

In FY2013, JDI's domestic sites acquired integrated ISO 14001 certification, through which we promote ongoing activities. Our environmental management organization consists of a structure with the Chief Executive Officer (CEO), Representative Director and Chairman as the Chief Executive for the Environment, and also comprises an Environmental Management Officer (CAO); Environmental Promotion Officer; and the Shinbashi, Western Japan, and Ebina offices, as well as manufacturing sites.

Our overseas manufacturing subsidiaries have individually acquired ISO 14001:2004 certification and have set up an environmental management organization, which promotes environmental activities. In the aim of integrating them with the environmental activities in Japan starting from FY2014 in particular, we are making efforts such as onsite visits to each overseas manufacturing subsidiary for mutual understanding of the activities and offering instructions for improvements, while also meeting periodically with each subsidiary to strengthen governance each other.



Schematic Diagram of Our Environmental Management Organization in Japan

Under the Chief Executive for the Environment, the Environmental Management Officer, to whom responsibility and authority for environmental activities has been transferred, manages environmental activities. The Environmental Promotion Officer coordinates overall environmental activities for the head office, offices, and each area.

The Environmental Management Review, chaired by the Chief Executive for the Environment, is held once annually for an environmental management system review. The Environmental Promotion Committee, chaired by the Environmental Management Officer, meets twice annually. This committee, which includes regional environmental officers, is JDI's highest deliberative body for environmental activities.

The Eco Products Subcommittee, chaired by the Environmental Promotion Officer, meets twice annually and includes members from each business headquarters. They primarily engage in deliberations over issues such as notification of laws and regulations related to product-related environmental activities, management of the chemical substances contained in products, and registering and expanding environmentally conscious products.

The effectiveness of our environmental activities depends on our Internal Environmental Audit Team, which consists of certified auditors from within the company who objectively examines environmental activities. Moreover, we ask external third-party organizations to check that our system of environmental activities is compliant with ISO 14001 requirements, and we periodically confirm the results.

In FY2017, we are preparing to acquire ISO 14001:2015 certification.

Environmental Activity Plans and Actual Performance

Our environmental activity plans for domestic sites and their actual performance in FY2016 are shown in the table below. When it comes to our environmental activities for FY2016, as a result of our legal compliance and periodic progress management for our environmental targets that was carried out in each quarter, we were able to achieve every item. Moreover, various committee meetings were held as planned, activities were confirmed by internal and external audits, and improvements were made. We also instituted environmental aspect surveys geared towards our activities in the next fiscal year at each site. We offered general environmental education and product-related environmental education, carried out a document review, and achieved all other items according to plan.

In preparation for the FY2017 shift to ISO 14001:2015 certification, we conducted training for the system migration from January to March.

○Plan ●Results

Items	Frequency	Category	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar
Environmental Management Reviews	Once every year	Planned	-	-	-	○ March
		Conducted	-	-	-	● Mar 24, 31
Environmental Promotion Committee	Once every term	Planned	-	-	○ October	○ March
		Conducted	-	-	● Oct 14	● Mar 10
Eco Products Subcommittee	Once every term	Planned	-	○ September	-	○ February
		Conducted	-	● Sep 16	-	● Feb 17
Revise Manual (ISO 14001-related documentation, on a regular basis)	Once every year	Planned	○ April	-	○ November	-
		Conducted	● May 20	-	-	● Jan 6
Internal/external audits	Once every year	Planned	-	○ Internal audits	○ External audits	-
		Conducted	-	● Jul-Aug	● Nov 10, 11	-
Environmental aspect surveys	Once every year	Planned	-	-	-	○ February
		Conducted	-	-	-	● March
Confirm legal compliance/target progress	Once every quarter	Planned	-	○ July	○ October	○ January
		Conducted	-	● July	● October	● January
Environmental education	Once every year	Planned	○ May-Jun	-	○ Oct-Nov	○ Jan -Mar
		Conducted	● May-Jun	-	● November	● Jan -Mar
Other	As needed	Planned	○ Update of website for external use	○ Issuance of Environmental Report	○ Update of website for external use	-
		Conducted	● May update	● September release	● Dec 7 update	-

Environmental Targets

We have set eight environmental targets on a companywide basis. They conform to our Environmental Policy and are aimed at reducing the environmental burden of our business activities and products, and conserving biodiversity. We intend to make continual improvements.

Environmental Targets for FY2016

Our FY2016 record relative to environmental targets is shown below. In all cases, targets were achieved. On the following pages, please see examples of items within each initiative.

	Item	Indicator	Target value	Actual value	Evaluation
(1)	Reduce emissions of energy-derived CO ₂ * ¹	Reduction rate for basic unit* ⁴ (Baseline: FY2013)	18.5%	24.1%	○
(2)	Reduce the amount of water received		2.4%	22.2%	○
(3)	Reduce emissions of priority controlled chemical substances* ²		22.2%* ⁶	25.4%	○
(4)	Reduce emissions of waste* ³ , etc.		7.5%	12.6%	○
(5)	Conserve biodiversity and implement ongoing regional environment-related activity with local communities	Implemented as planned		Implemented as planned	○
(6)	Supply environmentally conscious products that take product life-cycle into consideration	Proportion of environmentally conscious products* ⁵ (excluding customer causes)	100%	100%	○
(7)	Confirm chemical substances contained in products in the development process	Appropriate management of judgments on contained chemical substances		All cases appropriate	○
(8)	Promote environmentally conscious procurement activities	Discussion of Green Procurement Guideline revision in light of legal and other considerations		Revision carried out	○

Applicable range: (1) – (4) apply to the five plants of Tottori, Higashiura, Ishikawa, Nomi, and Mobara, which are manufacturing sites in Japan. (The applicable range for the baseline year includes the Fukaya Plant.)

*1: The CO₂ emissions coefficient from electricity is 0.476 t-CO₂/MWh (receiving-end CO₂ emissions basic unit for FY2011 announced by the Federation of Electric Power Companies of Japan). The other conversion factors are from the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.

*2: The priority controlled chemical substances refer to 38 substances selected as being subject to priority control efforts. They include volatile organic compounds (VOC) and PRTR targeted substances, and constitute the bulk of the substances that we use and emit.

*3: Waste, etc. = General waste + Industrial waste + Valuables

*4: The denominator for the basic unit is the glass substrate area (converted value)

*5: Proportion of environmentally conscious products = Number of environmentally conscious products / Number of products developed

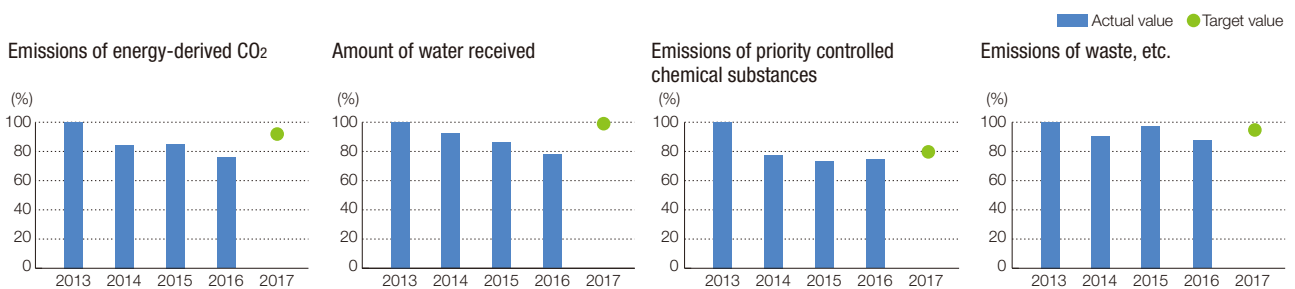
*6: This value takes into account the effect of product composition changes on the initial target value (27.8%)

Environmental Targets for FY2017

Our environmental targets for FY2017 are shown in the table below. We are using the same items as in FY2016. In items (1) to (4), big changes in the scale of production from FY2016 will probably results to worsen. We have factored in reduction measures and reviewed targets accordingly.

	Item	Indicator	Target value
(1)	Reduce emissions of energy-derived CO ₂	Reduction rate for basic unit (Baseline: FY2013)	8.1%
(2)	Reduce the amount of water received		1.0%
(3)	Reduce emissions of priority controlled chemical substances		20.3%
(4)	Reduce emissions of waste, etc.		5.3%
(5)	Conserve biodiversity and implement ongoing regional environment-related activity with local communities	Implemented as planned	
(6)	Supply environmentally conscious products that take product life-cycle into consideration	Proportion of environmentally conscious products (excluding customer causes)	100%
(7)	Confirm chemical substances contained in products in the development process	Appropriate management of judgments on contained chemical substances	
(8)	Promote environmentally conscious procurement activities	Discussion of Green Procurement Guideline revision in light of legal and other considerations	

Results in Four Production-Related Items and FY2017 Targets (basic units) vs. FY2013 Baselines












Environmental Aspects (Environmental Burden)









Our business activity consists of inputting energy and resources to create products, which are accompanied by outputs such as CO₂, waste, and so on. These inputs and outputs are regarded as environmental aspects within ISO 14001.

An overview of this is shown in the figure below (covers all domestic plants + overseas manufacturing subsidiaries in FY2016). The basis of our environmental improvement activities lies in reducing the amount of inputs and outputs, and we work to address such activities by determining each of these items for every area in a detailed manner.

INPUT

Contents		Japan	Overseas
 Electricity (purchased power)	MWh	1,290,375	121,030
 Electricity (solar power)	MWh	116	0
 City gas	million m ³	16.225	0.211
 Heavy fuel oil	kL	4,447	60
 LPG	t	2,805	0
 LNG	t	1,507	0
 Diesel oil	kL	0	1,424
 Amount of water received	million m ³	15.364	1.377
 Amount of priority controlled chemical substances* ¹ used	t	25,022	180

OUTPUT

Contents		Japan	Overseas
 Energy-derived CO ₂ * ²	t-CO ₂	672,000	84,000
 Greenhouse gases* ³	t-CO ₂	77,000	0
 Wastewater	million m ³	14.885	1.176
 Amount of priority controlled chemical substances* ¹ emitted	t	261	23* ²
 Amount of total waste (including valuables)	t	30,639	5,030
 Industrial waste	t	19,794	1,324
 Valuables	t	10,570	2,011
 General waste	t	275	1,695



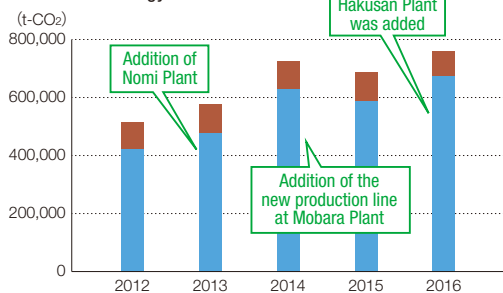
*1: The priority controlled chemical substances refer to 38 substances selected as being subject to priority control efforts.

*2: The CO₂ emissions coefficient from electricity in Japan is 0.476 t-CO₂/MWh (receiving-end CO₂ emissions basic unit for FY2011 announced by the Federation of Electric Power Companies of Japan). The other conversion factors are from the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures. Local emissions coefficients for China, Taiwan, and the Philippines were used for the CO₂ emissions coefficients from electricity in other countries.

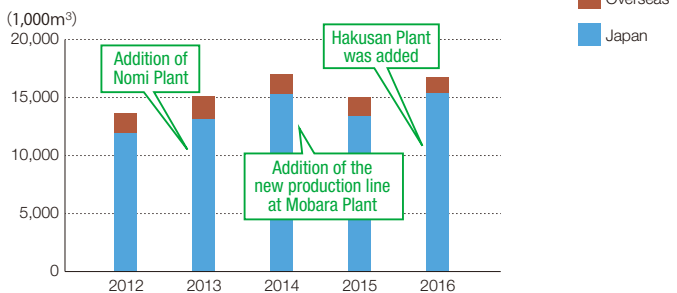
*3: Among substances covered in the Act on Promotion of Global Warming Countermeasures, we use the term "greenhouse gases" to refer to these seven substances: PFC (CF₄, c-C₄F₈), HFC (CHF₃, C₂HF₆), SF₆, NF₃, N₂O. We use AR4 for the emission coefficient.

*4: Within Japan, this refers only to emissions of the 38 priority controlled chemical substances designated by JDI, and overseas it refers only to emissions of VOC.

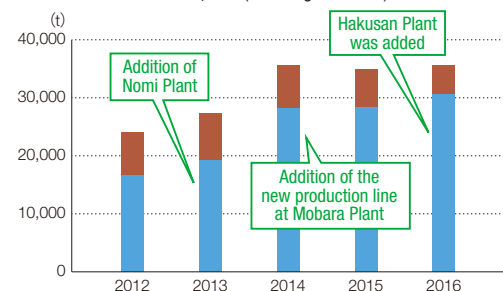
Emissions of energy-derived CO₂



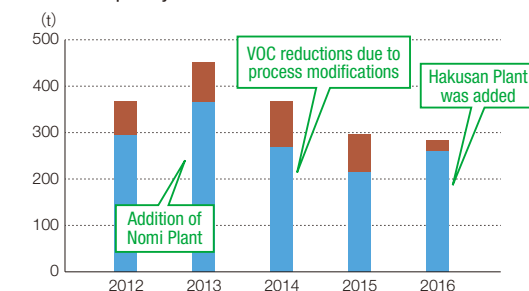
Amount of water received



Total emissions of waste, etc. (including valuables)



Emissions of priority controlled chemical substances



Environmental Audits

JDI conducts internal and external audits in order to verify that our environmental management system conforms to ISO 14001 requirements, is recognized by all applicable organizations, and that continuous improvements are made to our environmental activities by substantively going through the PDCA cycle.

The following indicates the details of audits held in Japan. Similar audits are also performed at each overseas manufacturing subsidiary.

(1) ISO 14001 Internal Audits

Audit period: July 13 – September 9, 2016 (implemented at each site during this period)

Targets: Head Office, Western Japan Office, Ebina Office, Tottori Area, Higashiura Area, Ishikawa / Nomi Area, Mobara Area

Applicable standards: ISO 14001: 2004, JIS Q14001: 2004

Findings: 0 nonconformities, 25 recommendations for improvement, 36 examples of good practice

Audit results:

Item	Audit summary
Nonconformities, recommendations for improvement	No nonconformities were found. Recommendations for improvement focused largely on education, operational management, and documentation, and some findings were dealt with in detail.
Good Practice (GP)	Among the 36 Good Practices, 25 were horizontally deployed GPs found last year. The remaining six were advances in digitization, innovations in internal communication confirmation, and other practices that we recommend for horizontal deployment.

Conclusion: We confirmed that JDI's environmental management system conforms to the requirements, well maintained and applied, and that it is functioning effectively.

(2) ISO 14001 External Audits

Date: November 10–11, 2016 (maintenance audit)

Targets: Head Office, Western Japan Office, Ebina Office, Tottori Area, Mobara Area

Certification body: Bureau Veritas Japan

Applicable standards: ISO 14001: 2004, JIS Q14001: 2004

Findings: nonconformities, 0 observations, 2 opportunities for improvement

Audit results:

Audit summary items	Audit summary
Effectiveness and reliability of the internal audit	Effectiveness and reliability of the internal audit were confirmed.
Effectiveness of management review	Instructions by the management were followed up by the Environmental Promotion Committee, and effectiveness was secured.
Effectiveness of goal achievement system	The goal achievement system was effective as the most of the targets were achieved, as confirmed by checking every month or three months.
Compliance situation	There were no legal violations and compliance was found to be managed appropriately.

Conclusion: The management system was found to be in compliance with the requirements of the standards by which it was judged. No nonconformities were found in operating conditions, and no inhibition of effectiveness and validity of certification were found. Certification was maintained.

Environmental Accounting

We carry out environmental accounting so that investments and expenses related to environmental conservation, as well as their results, are tallied up to give us a reference point for decision-making. Items for consideration come from the Ministry of the Environment's guidelines on environmental accounting, which we have chosen in consideration of their importance.

Environmental costs and effects for FY2016 are shown in the table below. Environmental conservation costs included investment to unify heat sources and thus cut energy consumption. On the expense side, the main items are outlays for outsourcing, waste treatment, consumable materials, environmental analysis and measurement, and repairs.

Regarding the effects of environmental conservation on our emissions, both energy-derived CO₂ emissions and waste emissions improved from year-earlier levels, due in part to the stoppage of some production lines. Sales of recovered valuables were affected by fluctuations in market prices for some materials and changes in specifications. As a result, the monetary amount of sales declined, but sales volume increased from FY2015.

Summary of Environmental Conservation Costs in Japan

Unit: 1 million yen

Major category	Item	Details	Investment	Expenses
Environmental conservation costs (costs within business areas*1)	Pollution prevention costs	Costs for preventing air pollution, water pollution, soil pollution, noise, foul odors, and more.	0	3,327
	Global environmental conservation costs	Costs for preventing global warming, conserving energy, preventing the depletion of the ozone layer, and more.	6	178
	Resource recycling costs	Costs for the efficient utilization of resources, as well as the recycling, treatment, and disposal of industrial waste and general waste.	0	594
	Total		6	4,099

*1: Analysis and measurement costs related to the environment are also included in the costs within business areas.

Summary of Environmental Conservation Benefits in Japan

Major category	Category	Item	Benefit	Unit
Environmental conservation benefits (physical unit)	Environmental conservation benefits related to environmental burdens and waste*2	Emissions of energy-derived CO ₂	30	1,000 t-CO ₂
		Emissions of waste, etc.	2,963	t
Economic benefits associated with environmental conservation activities	Operating revenue related to environmental burdens and waste	Revenue from the sale of valuables	57	1 million yen

*2: In order to consider the changes in the production output, values were derived using the following formula, which was established by referring to the Environmental Accounting
 Benefit = Emissions from the previous fiscal year × (glass substrate area from the fiscal year in question / glass substrate area from the previous fiscal year) – Emissions from the fiscal year in question.

Environmental accounting is applied to the six plants of Tottori, Higashiura, Ishikawa, Nomi, Fukaya, and Mobara (however, environmental conservation benefits for FY2015 excluded Hakusan but included Fukaya).

Global Warming Prevention and Energy Conservation Activities

In our Environmental Policy, we declared that we will take measures to prevent global warming and conserve energy. We have taken action based on FY2016 environmental targets, which take FY2013 as the baseline for our medium-term environmental action. We also participate in the “Action Plan for Commitment to a Low Carbon Society” being implemented by the electrical and electronics industry as a whole, and are working on improving energy efficiency with a view towards FY2020.

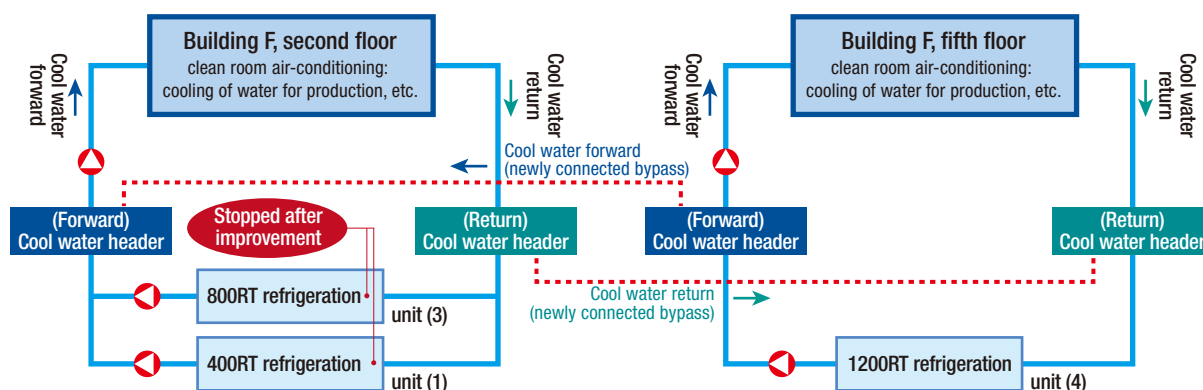
When it comes to reducing emissions from our plants, we have been working to make improvements by optimizing equipment use, with the highest priority being placed on reducing the energy used at and greenhouse gases emitted from our plants. Case examples from our Higashiura, Hakusan, Ishikawa, and Tottori Plants are introduced below.

Higashiura Plant: Energy Conservation through Unification of Cooling/Heating Sources

Building F at the Higashiura Plant has clean rooms on two floors, and the cooling and heating systems on the second and fifth floors were independent of one another. We considered whether using the Building F, fifth floor refrigeration unit to cool the second floor area would allow us to stop operating the superannuated second floor refrigeration unit. We concluded that if we carried out connecting bypass lines on the independent cooling and heating line, we could stop using the inefficient second floor refrigeration unit, resulting in reduced electricity usage.

Content of Improvement

Bypass piping work was implemented. By monitoring cooling demands, second floor temperatures can be managed using only the Building F, fifth floor refrigeration unit. This allowed us to stop the second floor refrigeration unit in an effort to reduce electricity usage.



Building F, second floor refrigeration unit



Cool water header newly connected bypass



Building F, fifth floor refrigeration unit



Effect: CO₂ output reduction of 1,441(t-CO₂/year)

Hakusan Plant: Global Warming Countermeasure Implemented with Introduction of Next-Generation (non-CFC) Coolant

Chlorofluorocarbons (CFCs) have a strong influence on global warming, so the use of non-CFC products has been widely promoted worldwide. Even at JDI, our refrigeration units and air conditioners use CFC coolant, so we must consider ways of aggressively switching to non-CFC equipment. At our new plant (Hakusan Plant), our introduction of refrigeration equipment with non-CFC coolant helps to prevent global warming.

Content of Improvement

Our switch to non-CFC equipment helps to prevent global warming.

Category	Method/Coolant capability (USRT)	Coolant	Global warming coefficient	Exterior view
Regular coolant	Turbo/2,500	Low-pressure alternative CFC	950	
Hakusan Plant next-generation coolant	Turbo/2,500	Low-pressure non-CFC	1	

Effect: Switch to non-CFC coolant reduces CFC by 5,850kg (time of installation)


Ishikawa Plant: Energy Conservation through Reduction of Heat Loss

A lot of steam is used in clean room air-conditioning and water purification equipment. The steam is supplied by boilers, and most of all of the steam pipes lines were wrapped with heat insulator so that heat does not escape, but many valves and pressure reducing valves were not insulated. We turned our attention to these points, and on conducting a survey, we found that the diffusion loss was considerable. Starting with the largest parts, we outfitted the exposed portions with "insulation jackets". As a result, heat loss declined (see thermography images below), fuel use declined, and finally we were able to reduce CO₂ emissions.

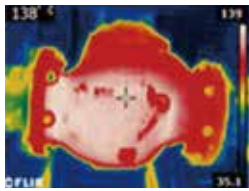
Content of Improvement

By reducing heat loss from steam pipes, we reduced fuel use (A-type heavy oil), hence CO₂ emissions.

Before heat insulation




Steam valve (without heat insulation)




Thermography image showing heat loss

↓

After heat insulation



Outfitted with insulation jacket



After outfitting: heat loss reduced

Effect: CO₂ output reduction of 110.9 (t-CO₂/year)

Tottori Plant: Renewable Energy Initiatives

The popularization and spread of renewable energies throughout society is important from the perspectives of combatting global warming, diversifying energy sources, and creating new industries and jobs. Our plants are striving to put in place solar power system as initiative to promote renewable energies.

Effectively Using Renewable Energy from Solar Power

As part of its efforts to prevent global warming, our Tottori Plant introduced a solar power system on the plant's rooftop in 2001. It started operation of the system as part of a joint study with the New Energy and Industrial Technology Development Organization (NEDO) to expand the adoption of solar power. The system has a maximum output of 150 kW (with a total of 900 solar power generating panels) and generated 116 MWh of electricity in FY2016, thereby contributing to reductions of approximately 55 t-CO₂.



Solar power generating panels at our Tottori Plant

Waste Reduction Activities and Waste Management

In its Environmental Policy, JDI's approach to waste involves promotion of the 3Rs (Reduce, Reuse, and Recycle).

Furthermore, pursuant to law we separate out specially-controlled industrial waste, industrial waste, and general waste, and perform risk management for each of these. In this report, we will introduce initiatives taken to reduce indirect risk (illegal dumping, accidents, etc.), as well as our response to the Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes.

Initiatives to Reduce Indirect Risks (Illegal Dumping, Accidents, etc.) from Waste (All Plants)

To protect against recent social problems such as the illegal dumping of waste, JDI manages its waste pursuant to law as a waste emitter. We have also voluntarily set standards for the environment and visit the waste collection and transportation companies and intermediate treatment companies we deal with, and we call upon them for their cooperation to ensure that accidents and problems do not occur.

During the periodic visits we use a checklist to confirm permitted scopes and licenses. We also confirm matters dealing with their waste disposal business, storage conditions, and management conditions with a checklist, and grade them as either passing or failing for each item before finally rating them with an overall score.

The waste collection and transportation companies and intermediate treatment companies we visited in FY2016 all received sufficiently favorable overall ratings for us to continue using them.

Image of JDI's standards checklist



Confirmation examples for waste intermediate treatment companies



Permit



Inside the premises



Inside the premises: breaker machine



Receiving pit



Kneading and granulating machine



Product storage site

PCB Waste Treatment at Mobara Plant

The term “PCB waste” refers to polychlorinated biphenyls (PCB), oil containing this substance, and waste products that contain PCB or have PCB residue on them. In accordance with the “Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes”, companies that store PCB waste must report to the government annually on storage status and either dispose of the waste materials before the legally allotted deadlines or consign the disposal to PCB waste treatment bodies.

JDI holds PCB waste at the Mobara and Tottori Plants. Let us report the ongoing status of the Mobara Plant. The Mobara Plant complies appropriately, presenting an annual report to government officials and cooperating with on-site inspections. Regarding disposal, in FY2016 it completed disposal (stage 1) of large-scale, high-concentration waste (3kg or more) as planned. In FY2017, disposal (stage 2) of all remaining small-scale, high concentration waste (less than 3kg) is planned. According to the revised law in 2016, the deadline for disposal in the Mobara Plant region was set to be done by March 31, 2022.

PCB waste treatment plan

JESCO: Japan Environmental Storage & Safety Corporation

Classification		FY2015	FY2016	FY2017
Drafting of treatment plan		← Drafting of plan →		Low-concentration waste: 0.5 – 5,000ppm High-concentration waste: over 5,000ppm
Low-concentration waste (Disposal facility: authorized disposal company)			← Treatment →	
High-concentration waste (Disposal facility: JESCO)	Large-scale (3kg or over)		← Treatment (stage 1) →	
	Small-scale (less than 3kg)			← Treatment (stage 2) →



Large-scale, high-concentration PCB waste (capacitor)



Loading to dedicated truck (1)



Storage of small-scale, high-concentration PCB waste



Loading to dedicated truck (2)



Transporting PCB waste by dedicated truck

Initiatives for Minimizing Environmental Risks

In order to minimize the risks of environmental pollution and the destruction of ecosystems, JDI continues to implement initiatives for wastewater and air emissions management, such as establishing our own voluntary standard values for these that are stricter than the regulated values found in laws, ordinances, and local agreements. This time, we disclose data on management of water and air quality, noise, vibration, and odors from one plant. For data from other plants, please refer to the separate sheet on JDI Environmental Measurement 2017. What is more, the chemical substances we use have the potential for considerable negative impacts to human health and the global environment. As such, we soundly manage the chemical substances we use and make efforts to prohibit the use of substances that have the potential to considerably impact the environment, and to continuously eliminate or find substitutions for them, from the point of view of prevention.

Wastewater Management

When it comes to management of the wastewater we discharge into rivers and sewage systems, JDI has established voluntary standards at each of our plants that are at least 20% stricter than local government regulations for 15 living environment items and 28 hazardous substances. We perform measurements and management based on our stricter standards. The measurement results for representative items are shown in the table below. Regular measurements and on-site inspections by government officials reveal that no regulatory values have been exceeded for any of the items. We will continue working to improve management of wastewater and facilities related to wastewater.

Main measurement data (Higashiura Plant)

Item	BOD ^{*1} (mg/L)	COD ^{*2} (mg/L)	SS ^{*3} (mg/L)	Hydrogen ion concentration (pH)	Normal hexane extractable material (mg/L)	Phenols (mg/L)	Phosphorus (mg/L)	Nitrogen (mg/L)	Nitrate nitrogen, nitrite nitrogen, and ammoniac nitrogen (mg/L)	Boron and its compounds (mg/L)	Fluorine and its compounds (mg/L)
Legal limit	15	10	15	5.8~8.6	2	5	1	10	100	10	8
JDI standards	12	8	12	6.0~8.3	1.6	4	0.8	8	80	8	6.5
Minimum value	0.5	2.9	1	7.1	0.5	0.05	0.02	2.7	2.1	1.0	1.9
Average	0.8	3.7	1	7.3	0.5	0.05	0.14	4.5	3.8	1.0	2.8
Maximum value	1.4	5.1	2	7.6	0.5	0.05	0.32	6.0	5.0	1.0	3.3

*1: Biochemical Oxygen Demand

*2: Chemical Oxygen Demand

*3: Suspended Solids

Odor Management

JDI regularly measures and manages odors in line with the Offensive Odor Control Law and prefectural ordinances.

Measurement data (Tottori Plant)

Item	Substance	Unit	Legal limit	JDI standard	Actual	Substance	Unit	Legal limit	JDI standard	Actual	Substance	Unit	Legal limit	JDI standard	Actual		
Limit No. 1 (boundary of site)	Ammonia	ppm	5	5	0.1	Hydrogen sulfide	ppm	0.2	0.2	0.002	Xylene	ppm	1	1	0.1		
	Toluene	ppm	10	10	1	—					—						
Limit No. 2 (gas outlet)	Ammonia	m ³ /h	720	720	0.38	Toluene	VOC abatement tower	m ³ /h	1200	1200	0.0044	Xylene	VOC abatement tower	m ³ /h	120	120	0.0004
	—						VOC abatement opening	m ³ /h	890	890	0.013		VOC abatement opening	m ³ /h	89	89	0.0013
	—						VOC abatement purified gas exit	m ³ /h	1100	1100	0.014		VOC abatement purified gas exit	m ³ /h	110	110	0.0014
Limit No. 3 (sewage outlet)	Hydrogen sulfide	mg/L	0.2	0.2	0.0005	—					—						

Air Emissions Management

In JDI manufacturing plants, facilities specified by the Air Pollution Control Act, such as boilers, gas turbines, and absorption cooling machines, are installed and under operation. The measurement results for representative items for them are shown in the table below. The results of regular measurements and on-site inspections by government officials reveal that none of the regulatory values had been exceeded for any of the items. We will continue working to improve air emissions management and the facilities related to this.

Measurement data (Ishikawa, Nomi, and Hakusan Plants)

Plant name	Target facility	Number	Particulate matter ⁴ (g/Nm ³)			Nitrogen oxides ⁵ (vol ppm)			Sulfur oxide ⁶ (Nm ³ /h)		
			Legal limit	JDI standard	Actual	Legal limit	JDI standard	Actual	Legal limit	JDI standard	Actual
Ishikawa	Once-through boiler	3	0.3	0.15	0.01	180	105	76	2.05	0.28	0.01
	Flue and smoke tube boiler	2	0.3	0.15	0.01	180	164	88	6.4	3.21	0.13
	Gas turbine	4	0.05	0.025	0.01	70	56	52	9.53	5	0.15
Nomi	Once-through boiler	6	0.3	0.15	0.001	180	105	46	2.05	0.28	0.1900
Hakusan	Once-through boiler	5	0.3	0.15	0.001	180	105	40	2.05	0.28	0.0001

*4: "Particulate matter" refers to soot and other solid particulate matter resulting from combustion.

*5: "Nitrogen oxides" is a generic term that refers to compounds that arise from a combination of nitrogen atoms (N) and oxygen atoms (O).

*6: "Sulfur oxide" is a generic term that includes compounds of sulfur and oxygen, mainly sulfur dioxide (sulfurous acid gas), sulfur trioxide, and others.

Noise and Vibration Management

JDI operates facilities (compressors, blowers, refrigeration units) that are designated by the Noise Regulation Act and the Vibration Regulation Act. The table below shows noise and vibration measurements taken at the edge of a plant site with those facilities. As a result of periodic measurements, no values were in excess of regulatory limits.

Measurement data (Mobara Plant)

Unit: dB

Category	Time period		Legal limit	JDI standard	Actual (maximums)
Noise	Morning	06:00~08:00	65	60	60
	Daytime	08:00~19:00	70	65	63
	Evening	19:00~22:00	65	60	57
	Night	22:00~06:00	60	57	55
Vibration	Daytime	07:00~22:00	65	60	46
	Night	22:00~07:00	60	55	38

Management of Chemical Substances

At JDI, we perform chemical substance management by broadly classifying these into the chemical substances used in our manufacturing processes, as well as the chemical substances contained in our products. An overview of chemical substance management in manufacturing processes at our domestic sites, as well as our management of chemical substances contained in products, is given below. Our overseas manufacturing subsidiaries also perform similar operations.

(1) Management of Chemical Substances from Manufacturing Site

We assign chemical substances into three categories—Prohibited, Reduction, or General—considering their impact on humans and the environment, as well as international treaties and the regulations of each country. Based on this, we defined our 38 highest-ranked substances by emissions volume as priority controlled chemical substances and have set forth reduction items for them in our environmental targets, through which we promote reduction activities.

Currently, prior to use new chemical substances, the division is required to submit an application for chemical substances that it would like to use in the manufacturing processes at our plants with attaching an SDS*¹ through our Chemical Substance Usage Application system. With this system, the relevant divisions check on factors like the substance’s hazardousness, if it can be substituted with other substances, regulations, and safety aspects. Only approved substances can then be used.

Each approved chemical substance is registered in the chemical substance management system, and each is managed appropriately based on its chemical identity (CAS number*²). There are currently about 2,000 substances registered. Each month, we acquire the information such as the quantities of greenhouse gases, substances subject to notification under PRTR*³, and substances corresponding to regulations and local ordinances in each region that are used, emitted, and transported, and undertake appropriate management. Currently, we carry out notifications on seven substances based on the PRTR system.

In FY2016, we aimed for greater accuracy in our reporting system by periodically measuring and analyzing specific chemical substances. In April 2016, we completed the switch to an abatement system to efficiently remove acetic acid 2-methoxyethyl emissions, and so we planned to reduce output of this substance by half from the FY2015 level.

Table of Substances Subject to PRTR Notification

Unit: kg

Chemical substances	Quantity discharged				Quantity transferred			
	To air		To public water bodies		Sewer		Off -site	
	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016	FY2015	FY2016
acetic acid 2-methoxyethyl	4,730	1,979	0	0	0	0	0	0
2-Aminoethanol	1,620	150.2	1,301	1,693	0	0	2.2	340
Hydrogen fluoride and its water-soluble salts	1,320	1,723.1	0	0	0	0	61	1,600
Boron and its compounds	0	0	190	240	0	0	330	14
Indium and its compounds	0	0	33	68	0	0	140	639.6
Molybdenum and its compounds	0	0	460	620	0	0	2,500	2,200

Since the actual quantities discharged into soil and disposed in landfill for the sites in question were zero, these were not recorded. Also, the amount of iron (III) chloride discharged or transported was zero, so it is not recorded.

*1: Safety Data Sheet

*2: Chemical Abstracts Service (a worldwide ID system in which a unique number is assigned to each chemical substance)

*3: The Pollutant Release and Transfer Register is a system in which the quantities of chemical substances designated as hazardous that are discharged into the environment (air, water, soil) or transferred out of business sites contained in waste must be determined by the business itself, which must also notify this to the national government

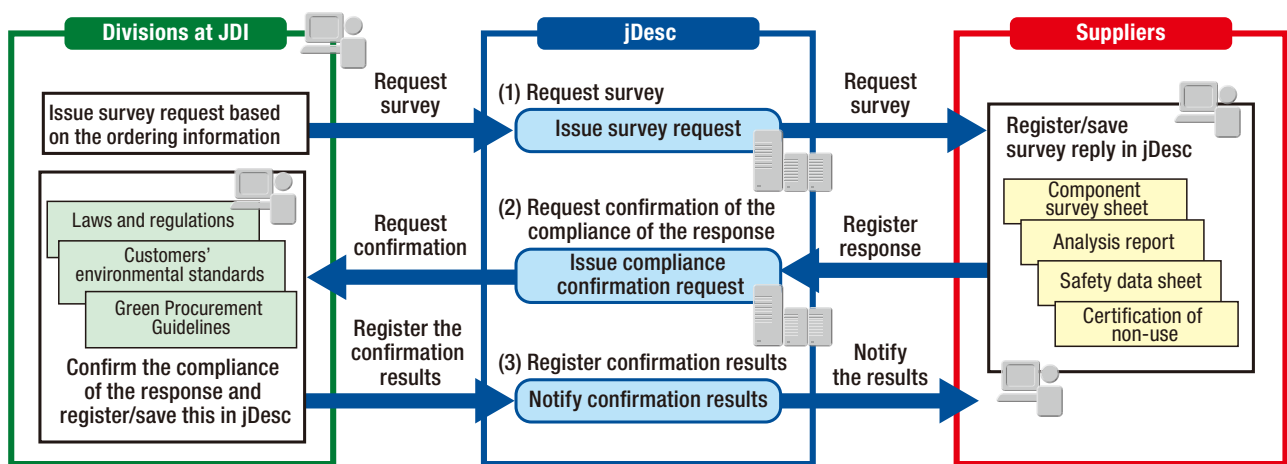
(2) Management System for Chemical Substances Contained in Products

Since April 1, 2013, we have been operating a system (jDesc*4) that links us with suppliers and helps us to manage the chemical content of products. Under this system, suppliers register their responses to questions about the materials used in procured products. By the end of FY2016, answers regarding approximately 14,000 products had been registered.

Based on the responses from suppliers and information on the composition of JDI's products, we are able to confirm the absence in our products of chemical substances that might have a profound impact on the environment. By specifying the chemical substances included in our products and tallying up the amounts of each one, we minimize the environmental risk posed by those substances. JDI will continue to closely manage the chemical substances contained in its products.

*4: JD Environmental information System for Chemical substances

Survey and registration using chemical substance management system (jDesc) for materials used in procured products



Environmentally Considered Products

We believe the effect that JDI's display products (henceforth, "products") have on the environment determines the environmental effect of products we send through the market. At JDI, we evaluate the environmental effect of products from the design stage and devote ourselves to designing and producing environmentally considered products. Let us introduce some initiatives from FY2016.

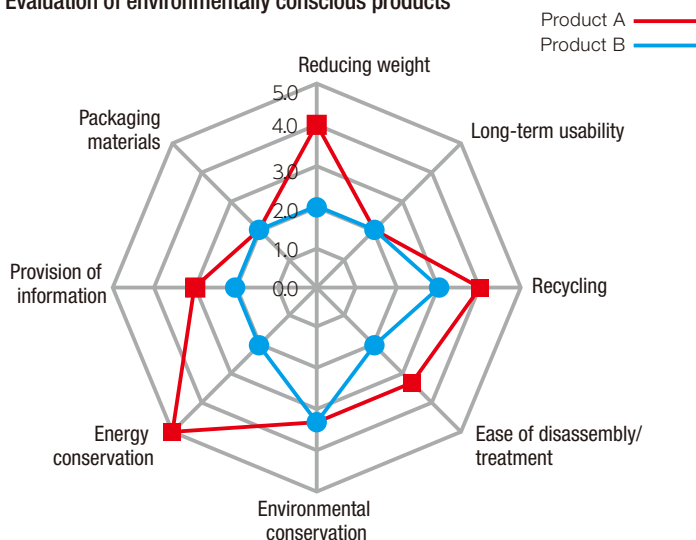
Initiatives Related to Environmentally Conscious Products

We consider the environmental effect of products through their entire life cycle, from the procurement of raw materials to disposal of the used product. Each of the eight evaluation items shown in the table has five levels, which are evaluated at the design stage. Products that receive a sufficiently high evaluation are called "environmentally conscious products." In FY2016, 100% of JDI's products were environmentally conscious products. We have worked to reduce the total environmental effect of our products. By designing and producing environmentally conscious products, we will continue contributing to global environmental conservation and the creation of a sustainable society.

Eight items for evaluating product's environmental burden

	Evaluation item	Content
1	Reducing weight	Reducing product size/weight
2	Long-term usability	Durability/reliability
3	Recycling	Reuse/recycling of parts
4	Ease of disassembly/treatment	Ease of dismantling/disassembly and disassembly time, etc.
5	Environmental conservation	Chemical substances in parts and in manufacturing processes
6	Energy conservation	Energy conservation in the product design
7	Provision of information	Framework for providing environmental information
8	Packaging materials	Chemical substances contained in packaging materials and etc.

Evaluation of environmentally conscious products



Management of Chemical Substances Contained in Products

The JDI Group works as one to manage the chemical substances contained in its products so that it conforms to legal regulations such as the RoHS Directive and REACH Regulations and is responsive to its customers' demands.

(1) Green Procurement Guidelines Enacted

We enacted our Green Procurement Guidelines to reflect both legal restrictions in various countries on the chemicals contained in products, as well as our customers' demands. We ask our suppliers to comply with the guidelines. The Green Procurement Guidelines are reviewed annually and are disclosed on our website.

(2) Confirmation of Chemical Substances at the Product Design Stage

We operate a management system for chemical substances contained in products (jDesc) by which we track raw materials and other procured items. Under this system, suppliers register environmental information about the materials used in procured products. At the product design stage, environmental information received from suppliers and information on the composition of JDI's products are used to confirm whether a product conforms to Green Procurement Guidelines and customers' demands.

(3) Establishment and Confirmation of Suppliers' Management Systems for the Chemical Substances in Raw Materials and Other Procured Products

We ask our suppliers to establish a management system for the chemical substances contained in raw materials and other procured items that follows the Guidelines for the Management of Chemical Substances in Products set by the Joint Article Management Promotion-consortium (JAMP). Using the system that links suppliers with JDI (jDesc Survey Site), we confirm whether a management system has been established. Suppliers that do not meet JDI's standards are asked to correct and improve their management systems.

(4) Confirmation of Materials in Procured Items at the Production Stage

At the production stage, we periodically sample materials and other procured items in products and, using a fluorescent X-ray analyzer, check that substances restricted by the RoHS Directive (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers) are below stipulated levels.

Participation in Exhibitions

With the goal of disclosing information to and achieving mutual understanding with our stakeholders, we display products that incorporate the latest in JDI's technology at various exhibitions, such as SID Display Week 2017. These exhibitions open up two-way lines of communication. We would like to report on two recent exhibitions: the Japan Display Technology Exhibition and SID Display Week 2017.

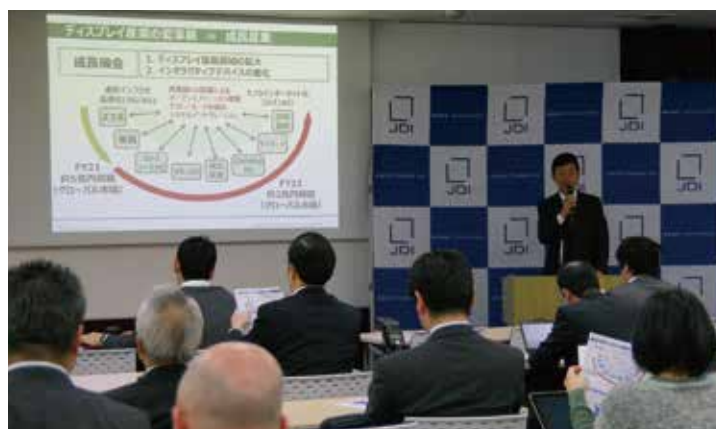
The Japan Display Technology Exhibition

On January 25, 2017, many members of the media, institutional investors, and students were present at Learning Square Shimbashi when JDI opened its Japan Display Technology Exhibition. One of the products shown at this exhibition was the FULL ACTIVE™ display for full high definition (FHD) smartphones, which makes use of low-temperature polysilicon (LTPS) LCDs, an environmentally conscious product that provides high resolution with low electricity use. Other items shown included attractively designed automotive-use displays; environmentally conscious reflective-type displays; low power consumption, high-resolution PC displays; and other advanced products in the non-mobile field.

We displayed products outfitted with our most advanced technology at the exhibition, and imparted a deeper understanding of JDI's low power consumption and light-weighting and miniaturization technology.



Japan Display Technology Exhibition

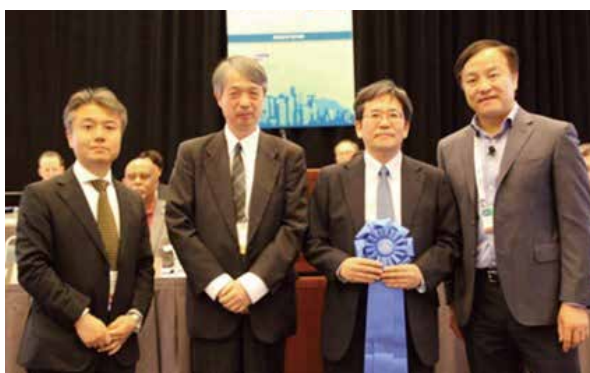


Explanation of market trends, our business developments, and basic strategy

SID Display Week 2017

From May 21 to 26, 2017, JDI participated in SID Display Week 2017 at the Los Angeles Convention Center. The most advanced technology was shown and announced via academic papers. The FULL ACTIVE™ Series of displays, incorporating JDI's core environmentally conscious low power consumption, high-resolution LTPS technology was shown, as well as flexible displays. Other items shown included prototypes of high-transmittance color transparency displays and aerial displays. We imparted a deeper understanding of JDI's low power consumption and light-weighting and miniaturization technology.

JDI's high-transmittance color transparency displays and FULL ACTIVE™ products received "Best in Show" awards. The Best in Show award is given for display technology, systems, and products shown at Display Week, as well as their production processes, that signify important advances and are judged to be superior.



FULL ACTIVE is a trademark of Japan Display Inc.



Ecosystem Conservation Activities

JDI works for the conservation of ecosystems through greening activities at our plants and nature recovery activities in surrounding areas.

We will introduce the initiatives of our Mobara Plant and Nomi Plant.

Activities at Mobara Plant

At the Mobara Plant, we have a man-made firefly creek called Hotaru-gawa Creek, and a man-made pond called Koi Pond, with koi living in it. Fireflies dwell in the creek, and to maintain a healthy environment for them, we carry out cleanup activities around the creek and the koi pond and perform other conservation activities such as monitoring and maintaining water quality.

In FY2016, we performed cleanup and conservation activities around the firefly creek in June and December. We regularly clean water supply facilities for the firefly creek and we carried out water quality improvement measures resulting in crystal clear water, allowing us to see schools of Japanese rice fish.



Cleanup of the koi pond



Medaka, Japanese rice fish in the firefly creek



Water lilies and koi in the koi pond



Water lilies and Japanese rice fish in the koi pond

Activities at Nomi Plant

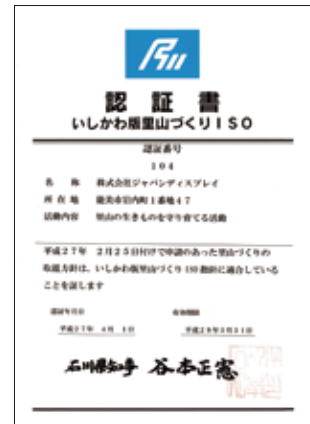
Maintenance of the Nomi Plant Biotope

At the Nomi Plant Biotope, we carry out environmental conservation activities aimed at making the biotope a good habitat for living things from that region.

The Nomi Plant, a manufacturing plant using and disposing a lot of water, and utilizing some disposed water for the biotope. The biotope proves that the wastewater treated via our plant is properly purified and does not affect the environment.

Ishikawa Prefecture has a system called “Ishikawa-version Countryside Improvement ISO,” a prefecture-led initiative aimed at promoting conservation of the countryside. The Nomi Plant’s biotope has been certified under this system for its provision of a good environment and ecosystem survey activities.

We would like to maintain ecosystems and food chains that are unified with our natural surroundings, aiming for conservation of our natural scenery.



Lesser emperor dragonfly



Food chain (praying mantis and darter dragonfly)



Biotope

Communication

We promote social welfare and contribution activities that are firmly rooted in local communities at each of our plants in Japan and overseas.

Of these, let us introduce the Kawakita Clean Campaign (Ishikawa, Nomi, and Hakusan Plants), the Higashiura Plant's participation in the Natural Environment Learning Forest, and the Tottori Plant's Tottori Sand Dunes cleanup and snow shoveling.

Activities by the Ishikawa, Nomi, and Hakusan Plants

The annual Kawakita Clean Campaign & Tedori River Clean-up Blitz are activities held within the wide area of Kawakita town, covering 20km of roadsides and riverbanks.

In FY2016, this annual activity was held for the 20th time. On May 28, a total of 370 JDI employees, family members, people from other companies in nearby areas, and employees of subcontractor firms participated. Attendees were split up into 17 blocks and collected 200kg of trash. Families with children planted flowerbeds and planters with flower seedlings.



The Hakusan Plant takes part in the cleanup activities organized by the Hokubu Industrial Park, held twice annually in spring and autumn.

On October 7, 2016, 80 people took part in the cleanup for 60 minutes before work in the early morning and gathered about 250kg of fallen leaves and other debris.



Environmental Education at Kawakita Nursery Schools

We visited three nursery schools in Kawakita and carried out environmental education. As children answered our “Look for the Mottainai (Wastefulness)” quiz, they seemed to understand the importance of environmental conservation, of not leaving leftovers on one's plate, and ways to cut down on garbage. The experience of flashing LED lamps, attached on a Shikansen toy made from used plastic beverage bottles, was very popular.



Activities at the Higashiura Plant

The Higashiura Natural Environment Learning Forest, operated by Aichi Prefecture, is located next to the Higashiura Plant. Our plant participates in the events to support the forest on a regular basis.

On October 8, 2016, JDI employees participated in harvesting a rice paddy in the Learning Forest. Three of the participants were from JDI. The rice paddy was very muddy due to rain the night before, so the participants harvested only one paddy (out of three) before calling it a day.

The Higashiura Plant will keep contributing to the community.



Harvesting rice



After harvest of the rice paddy

Activities at the Tottori Plant

As the regional contribution for eastern Tottori area, the Tottori Plant has been participating in the Tottori Sand Dunes cleanup twice a year, spring and fall.

A total of 127 participants, including JDI employees and their family members, gathered wooden and plastic scraps that had been washed up on the sea shore.



Participants in the cleanup activity

Heavy snow that started falling on Tottori from February 10, 2017, eventually turned into the deepest snowfall in 33 years (approximately 90cm). For a time, pavements around the Tottori Plant were rendered impassable, so we set to remove the piled snow. Using a snow blower, scraped snow was blown away to clear paths inside the plant and on nearby pavements. During this hard work, many passersby gave words of encouragement. We will continue to make community-linked contributions through activities.



Shoveling and blowing snow on the pavement around the Tottori Plant, and a passage is opened (on the pavement next to the plant)

Communication with Overseas

We have five overseas manufacturing subsidiaries. They mainly assemble liquid crystal panels and manufacture liquid crystal parts. Each company has acquired ISO 14001 certification, and they promote to continue improvements for environmental aspects. Their primary environmental burdens come from the electricity and water used in production, as well as their waste.

All of the companies promote reductions of their environmental burdens, and work on preventing global warming (reducing CO₂) and effectively using resources (reusing water resources and reducing the amount of waste generated) as priority issues. We work to communicate with the companies by holding regular meetings to confirm and to ascertain the progress of each company.

The following article introduces the activities of Kaohsiung Opto-Electronics Inc. (KOE).

KOE Company Profile

Company name	Kaohsiung Opto-Electronics Inc. (KOE)
Address	2 East 13th Street, Kaohsiung City Kaohsiung Export Processing Zone Taiwan
Established	June 15, 1967
Representative	Oliver Chang
Business	To design, manufacture, and market LCD display elements and modules
No. of employees	1,640 (end March 2017)



Kaohsiung Opto-Electronics Inc. (KOE)

Environmental Plans and Results

	Initiatives	Target	Result	Assessment
1	KOE practices energy and resource conservation and tries to lower its CO ₂ output.	Electricity usage reduction: 27,300kWh/year CO ₂ emission: 14.2t-CO ₂	Electricity usage reduction by three implemented measures: 27,336kWh/year. CO ₂ emission: 14.244t-CO ₂	○
2	Green procurement is strongly promoted, enabling the company to offer environmentally conscious products and services that contribute to lessening KOE's burden on the environment.	Customer complaints about abnormalities in hazardous substance-free (HSF) products: 0	No complaints: maintained at 0	○
		Abnormalities found by RoHS inspection of delivered parts: 0	No abnormalities: maintained at 0	○

Examples of FY2016 Environmental Activities

(1) Electricity usage reduction

KOE is carrying out a periodic update of aging air-conditioning systems, air compressors, refrigeration units, a cooling tower, and attendant facilities. The updates should reduce electricity usage and CO₂ emissions, and thus raise energy efficiency. (The 2016 update to three air-conditioning systems reduced energy usage by 27,336kWh/year (14.2t-CO₂/year))

(2) Effective use of water resources (recovery and reuse of wastewater from production processes)

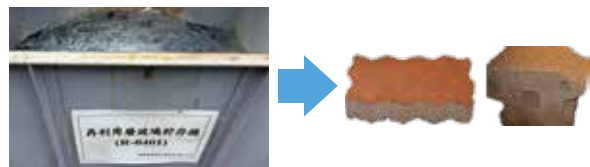
Wastewater emitted from washers in the manufacturing process is passed through activated charcoal and ultraviolet light to sterilize it. After this treatment, the water is recovered and used in the manufacturing process. (Water purchase volume reduced by 13,728m³/year)



Equipment for recovery and reuse of wastewater from the production process

(3) Reduction of final waste disposal volume (recycling of waste glass)

KOE recycles waste glass that does not contain any LCD materials. The waste glass can be used as an additive in bricks, asphalt, and other materials, which helps to reduce the final amount for disposal. (Glass for final disposal reduced by 50t/year)



Waste glass is recycled as an additive for bricks

(4) Promotion of energy conservation activities

Energy is conserved by turning off office lights during lunch breaks and setting the air-conditioning temperature at 26 degrees C.

(5) Environmental education for local employees and their families

Every year KOE holds parent-child events that are aimed at raising the environmental consciousness of employees and their families. Also, KOE regularly participates in environmental volunteer activities organized by the industrial park to which it belongs. (For example, a public bicycle system has been established to reduce energy use and CO₂ emissions.)



Energy conservation posters are displayed in the workplace



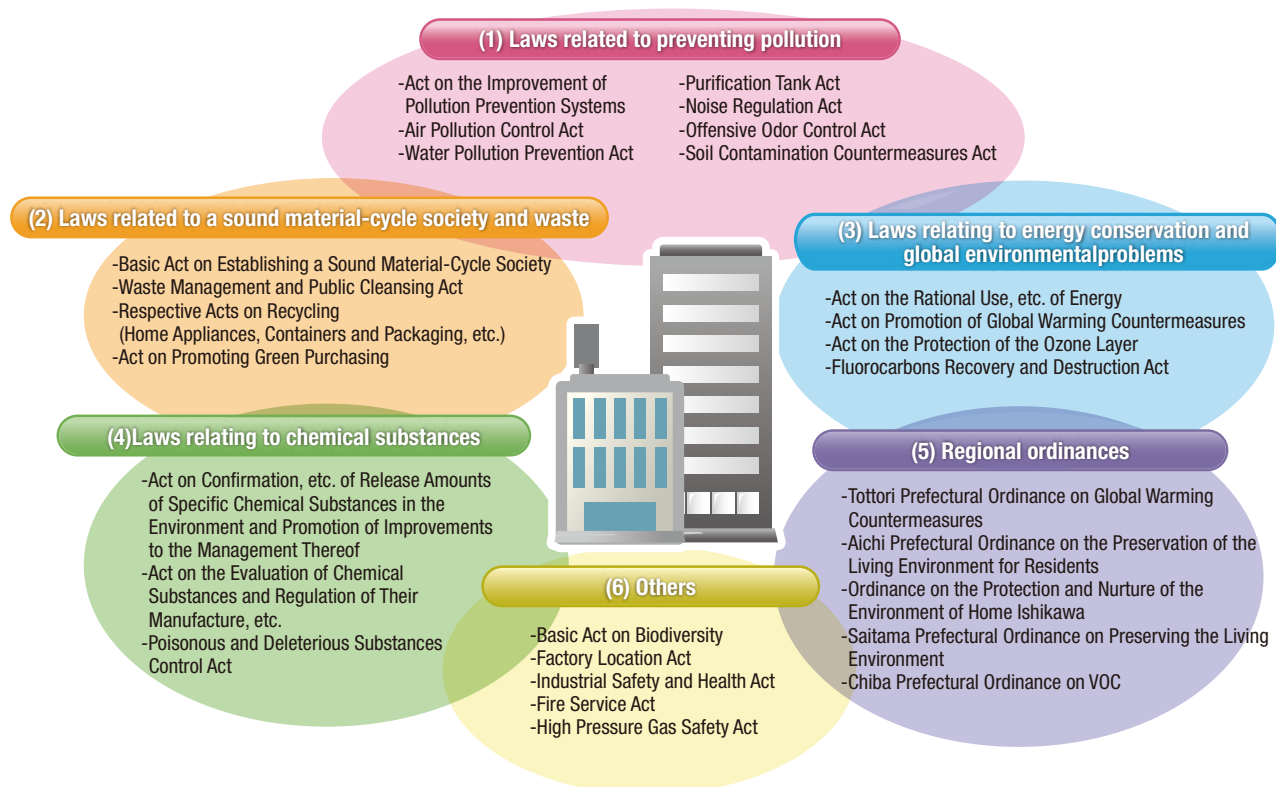
Office air-conditioning temperature is set at 26 degrees C



Environmental education is promoted at a parent-child event

Legal Compliance

Compliance is one of the most fundamental challenges when it comes to companies fulfilling their social responsibility. We pre-emptively prevent the discharge of environmental pollutants and other contaminants into the soil, groundwater, and atmosphere, while also creating systems for compliance to environmental laws and undertaking environmental conservation activities. This fiscal year, there were no violations of environmental laws, neither in Japan nor overseas. Major laws related to the environment in Japan are indicated below.



Afterword

This environmental report is issued by Japan Display Inc. continuing on from last year.

We think it important to appropriately disclose information to and communicate with all of our stakeholders. This report was compiled with the goal of conveying our activities for the realization of a sustainable society in an easy to understand manner.

In editing the report, we have included the data and details of activities taken by overseas manufacturing subsidiaries. We also expressed ideas by incorporating as many figures and photographs as possible, and we introduce each of our activities through their own page layout. We plan to issue this regularly once each year while working to make the report even easier to read in the future.

Japanese version is also available from our website (<http://www.j-display.com/Environment/report.html>), and we would be pleased if people were to view this as well.

If there are any comments, advice, and so forth, please contact us via our website below so that we can use them as references for the future.

Please use the URLs below to access our website and contact us using these forms.

Enquiries about products, etc. <https://www.webcoms.jp/jdi/eng/form.php>
Enquiries from shareholders and investors <https://www.webcoms.jp/jdi/ir/eng/form.php>

Target Period April 2016 – March 2017 Some activities outside of the above period are also included.

Month Issued August 2017

Assumed Readers This report is aimed at a diverse range of stakeholders that includes our customers, shareholders, investors, suppliers, everyone in our local communities, and more.

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Japan Display Inc.

3-7-1, Nishi-shinbashi, Minato-ku, Tokyo, 105-0003, Japan