

Environmental Report

DYNIC CORPORATION



2018



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Message from the President

Dynic Corporation promotes corporate activities covering the stages from development through to disposal of products, considering the environmental preservation at all times.

The corporate objective of Dynic is to color our day-to-day life *abundant* and *comfortable*.

All employees of Dynic always take care to follow the Environmental Basic Policy, which was established for the purpose of directing us to a habitable earth, and are working hard every day on environmentally-friendly corporate activities in consideration of harmony between technology and the environment.

We have taken a series of energy saving measures: the installation of energy efficient systems including high-efficiency steam boilers, air conditioners, and freezers, and the use of heat pumps for reducing steam and electric power consumption. In addition, we organize activities for the "Taga-cho Astro Club" for elementary and junior high school students at Dynic AstroPark Observatory in Taga-cho, Shiga Prefecture, where our Shiga Factory is located. We also provide stargazing and environmental awareness raising programs as a part of our cooperation with the local government. This fiscal year, we first set medium-term objectives (FY2018 -2020) for selected environmental indexes. We will report our achievements thus far in this environmental report.

To ensure that we continue to be a trusted company in the future, all our employees will work together as one to strengthen our efforts regarding environmental measures and undertake the development of environment-related products that take into consideration the global environment and living environments, promoting business activities that contribute to the realization of global environment preservation with our eyes towards the next generation.



A handwritten signature in black ink, which appears to read "Yoshio Oishi". The signature is fluid and cursive, written over a white background.

Yoshio Oishi
President
Dynic Corporation

August 2018

Company Profile

Corporate Name	Dynic Corporation
Establishment	August 18, 1919
Capital	5,795,650,000 yen
Stock Listing	Listed on the first section of the Tokyo Stock Exchange
Amount of Sales	27.8billion yen (40 billion yen including the Group companies) (As of March 31, 2018)
Employees	600(1,392 including the Group companies) (As of March 31, 2018)
Head Office	<p>Kyoto Head Office: 26 Daimon-cho, Nishikyogoku, Ukyo-ku, Kyoto 615-0812 Tel: +81-75-313-2111(main) Fax: +81-75-313-2116</p> <p>Tokyo Head Office: Shin Onarimon Bldg., 6-17-19, Shimbashi, Minato-ku, Tokyo 105-0004 Tel: +81-3-5402-1811(main) Fax: +81-3-5402-3146</p>
Branch	Sapporo, Sendai, Tokyo, Nagoya, Osaka, Fukuoka, Hong Kong, Singapore, U.S.A., Thailand, England, China, Indonesia (including the Group companies)
Factory	Shiga, Saitama, Oji, Fuji, Moka, Singapore, U.S.A., Thailand, England, China, Indonesia (including the Group companies)
Affiliated Company	Six companies in Japan; ten companies in other countries
Business Line	Book-binding cloth, cloth for printing/business purposes, decorative cloth for packages, cloth for magnetic passbooks, film-coated products, material for display labels, composite film, printer ribbon, business card printers, stationary paper goods, magnet-related products, moisture getter for organic EL, carpet, wallpapers, ceiling material, blinds, non-woven cloth/carpets for automotive interiors, filters, industrial tarpaulins, canvases, rainwear, industrial non-woven cloth, aluminum foil/lid material for container sealing, paper core/paper packaging, film processing for cataplasm, freshness-keeping agents for food, adhesive interlining, fancy products, transportation/storage of products, etc. (including



Basic Environmental Policy

[Basic Environmental Policy of Dynic]

Dynic Corporation is aware the efforts toward environmental preservation are an important business challenge and believes it is the responsibility of the manufacturer to observe domestic and overseas laws and regulations related to the environment and provide products with less environmental burden to the markets. To implement the concept in a specific manner, we will thoroughly promote the following items in each of the stages, including development, material procurement, manufacturing, sales, distribution, and disposal.

- (1) We will reduce the environmental burden in all stages of our business activities throughout the life cycle of the products;
- (2) We will proactively make efforts to save energy and reduce waste, thereby preventing environmental contamination;
- (3) We will prevent risk caused by harmful chemical substances that damage the environment;
- (4) We will disclose information regarding our business activities related to the environment and proactively promote environment preservation activities, while acting in concert with local communities; and
- (5) We will implement education related to environmental preservation, thereby improving awareness of the environment.

Yoshio Oishi, President
Dynic Corporation

■ Efforts for Reducing Environmental Burden

We are introducing the manufacturing method that features less of an energy burden and implementing product design where resource saving and longer service life are taken into consideration; in addition, we consider materials that feature less of an environmental burden and materials that are easy to recycle from the design phase of the product. In the manufacturing phase, we make efforts to save energy and reduce waste in the manufacturing scene every day, thereby contributing to the reduction in the environmental burden. In the marketing phase, we propose environmentally friendly products that reduce the environmental burden at the customer by using the products, thereby making efforts to contribute to the environmental preservation of the earth.

■ Efforts for Countermeasures against Global Warming and Biodiversity Conservation

We are promoting countermeasures against global warming through our efforts for energy-saving activities throughout Dynic, thereby reducing emissions of carbon dioxide. In addition, regarding the biodiversity conservation, we are making efforts toward coexistence with the global environment through our activities toward risks, including countermeasures against global warming.



● Midterm Environmental Objectives ●

We set the midterm objectives for environmental performance (FY2018 to 2020) and are committed to them.

The objectives for the midterm (FY2018 to 2020) and those for FY2018 are as follows:

● Midterm Environmental Plan (FY2018 - 2020)

Areas		(Units)	Reference Fiscal Year	FY2018 objectives	Final objectives of FY2020
Global warming mitigation Energy saving	CO2 emissions reduction	(t-CO2)	2013	5% reduction	7% reduction
	Reduction in specific energy consumption	(L/km of oil equivalent)	2017	1% reduction	3% reduction
Resource saving	Reduction in water consumption	(1000tons)	2017	1% reduction	3% reduction
Reducing, reusing, and recycling of waste	Waste volume reduction	(t)	2017	1% reduction	3% reduction
	Volume reduction of industrial wastes subject to final disposal	(t)	2017	1% reduction	3% reduction
Prevention of environmental pollution	Reduction in emissions of PRTR substances	(t)	2016	10% reduction	20% reduction
Environment-related products	Increase in % sales	(%)	2017	0.5% increase	1.5% increase

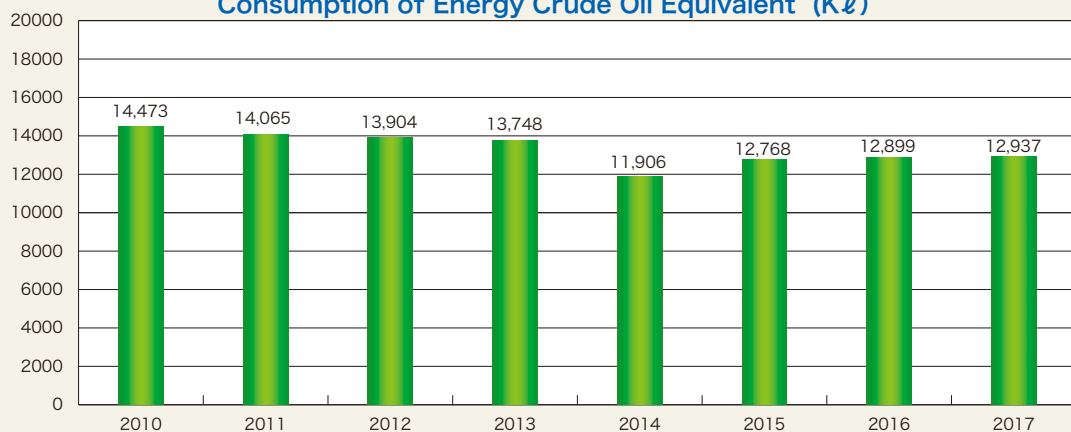
Initiatives related to global warming/saving energy

Our production activities inevitably involve energy consumption. The consequence is the emission of the greenhouse gas CO₂. We are reducing the energy consumed in production processes as a part of efforts to reduce emission of the greenhouse gas. We have replaced conventional equipment with energy-saving equipment such as LED lamps on the factory ceiling, high-efficiency transformers and air conditioners, compressors centralized in a location intended to increase efficiency, and LED lamps in offices. In addition, we have installed new equipment and refurbished existing equipment to increase productivity and eventually, energy efficiency.

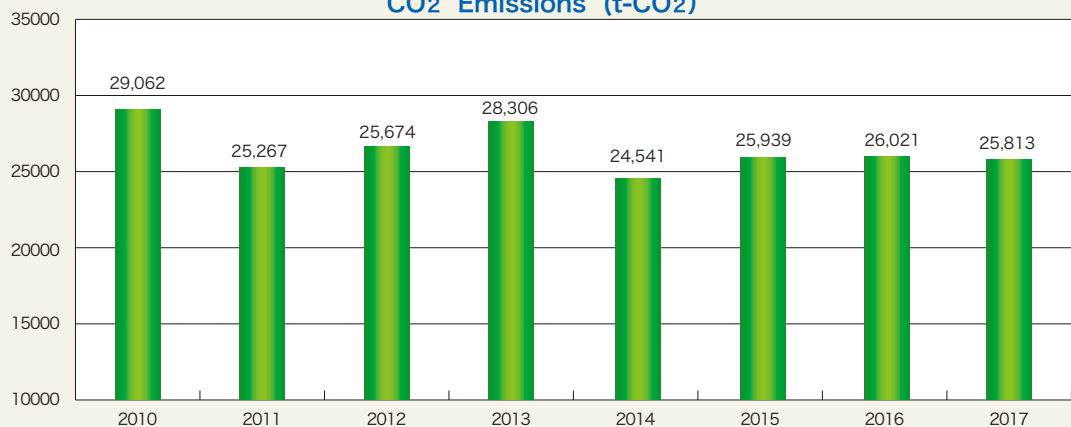
We had an increase in production volume in FY2017, with a 0.3% increase in energy consumption from the previous fiscal year's level. CO₂ emissions, however, decreased by 0.8% compared with the previous fiscal year's level. The specific energy consumption decreased by 1% or more compared with the previous fiscal year's level.

In FY2018, we will continue to aggressively increase productivity and install more energy-saving equipment toward the objectives.

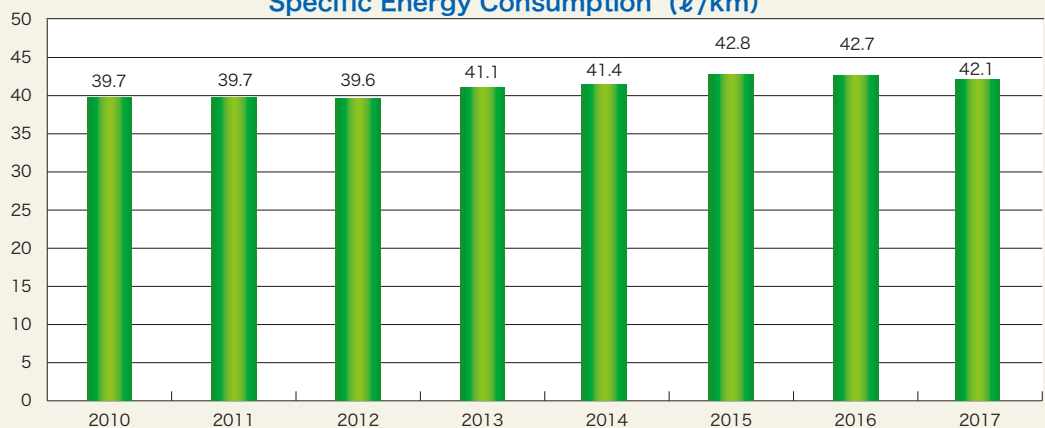
Consumption of Energy Crude Oil Equivalent (Kℓ)



CO₂ Emissions (t-CO₂)



Specific Energy Consumption (ℓ/km)



We reviewed the existing calculation scope, and this resulted in changes in the values.

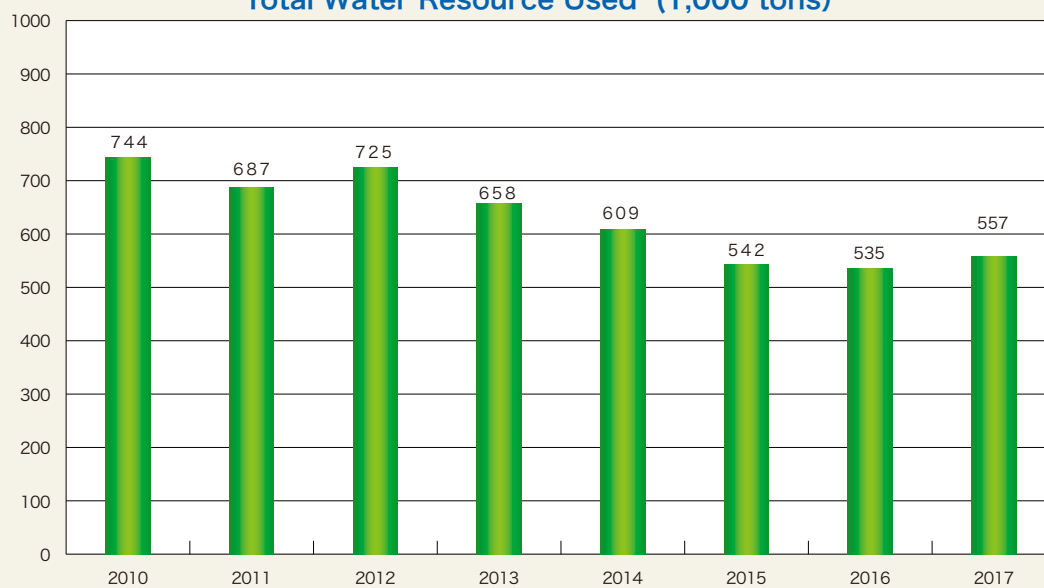
Initiatives related to saving resources/reducing waste

● Efficient use of water resources

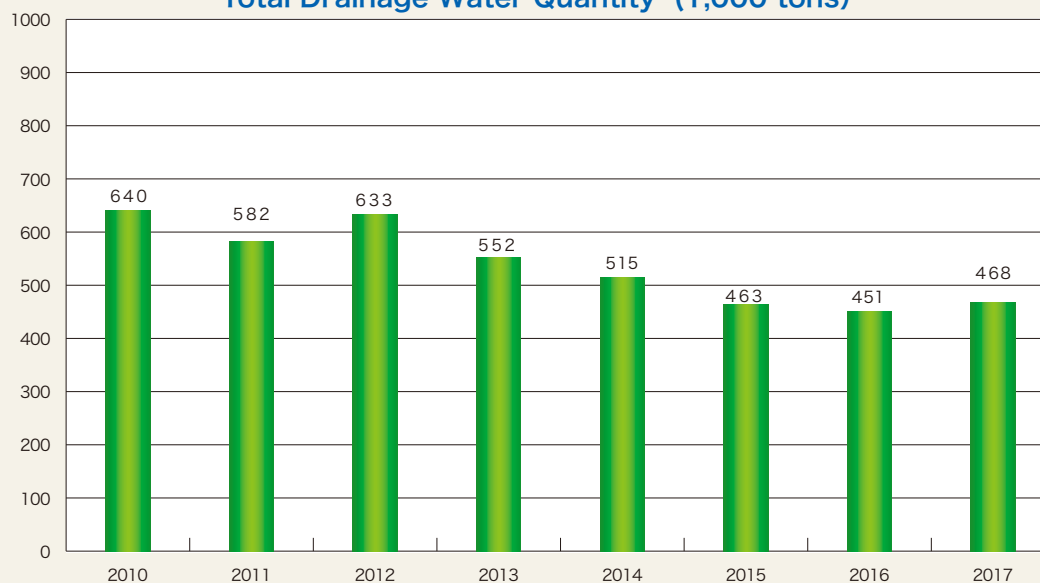
We have recycled more waste water from the washing and cooling steps in the production process in order to effectively conserve water resources.

In FY2017, Dynic saw a 4.1% increase in total water resources input from the previous fiscal year and a 3.8% increase in total water discharge from the previous fiscal year as a result of an increase in production volume of Saitama Factory.

Total Water Resource Used (1,000 tons)



Total Drainage Water Quantity (1,000 tons)



● Initiatives to reduce waste matter

We are committed to waste reduction in order to protect the global environment. In order to not only reduce waste generation but also effectively use resources, we push forward reuse and recycling approaches.

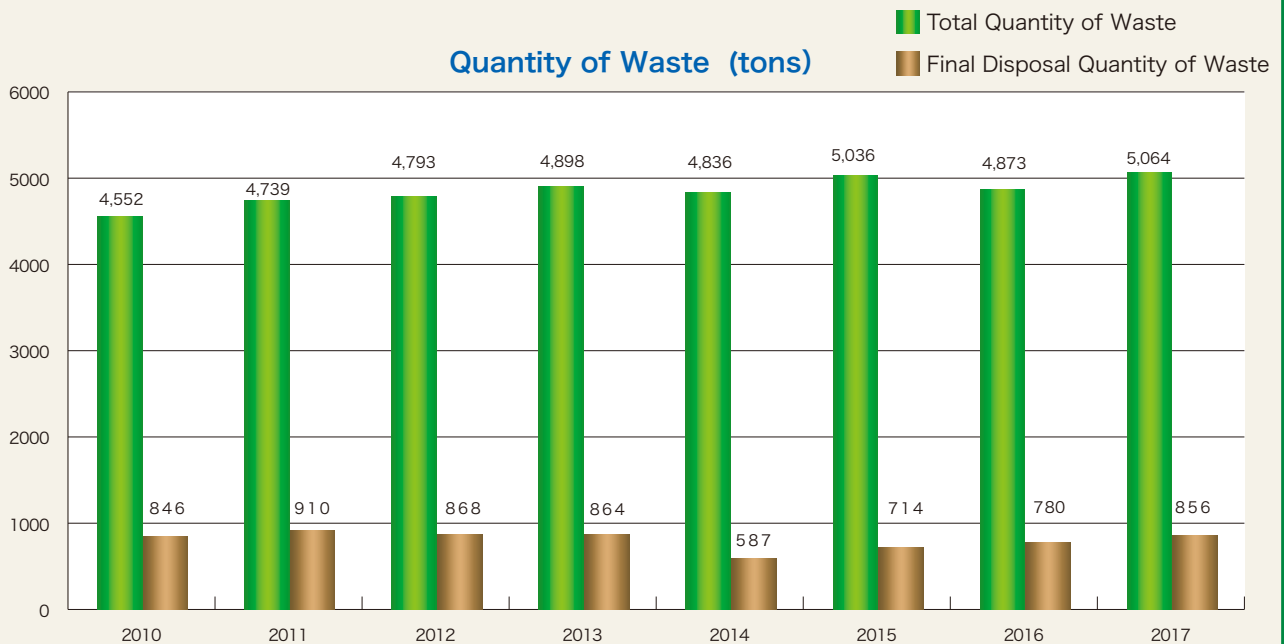
Our total material input for FY2017 was 33,497 tons, up 1% from that of the previous fiscal year.

On the other hand, total waste volume increased by 3.9% from the previous fiscal year, and the volume of waste subjected to final disposal increased by 9.7% from the previous fiscal year.

Total Quantity of Materials Used (tons)



Quantity of Waste (tons)



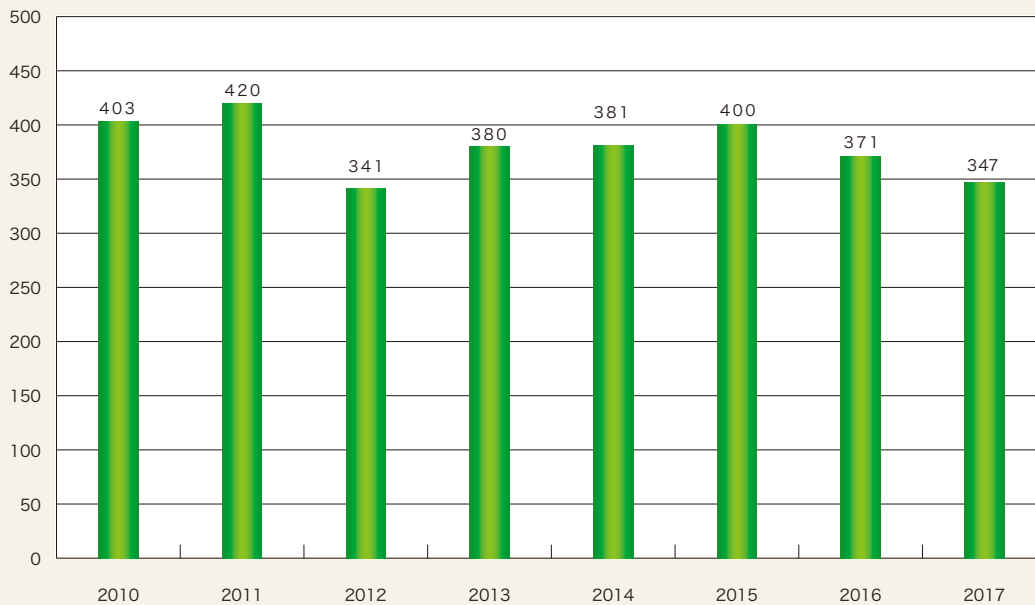
Initiatives to reduce the release of chemical substances

In accordance with the Law concerning Pollutant Release and Transfer Register (PRTR Law), we notify the regulatory authority of the amounts of chemical substances that are discharged into the environment after their use in the manufacturing process and make efforts to reduce them.

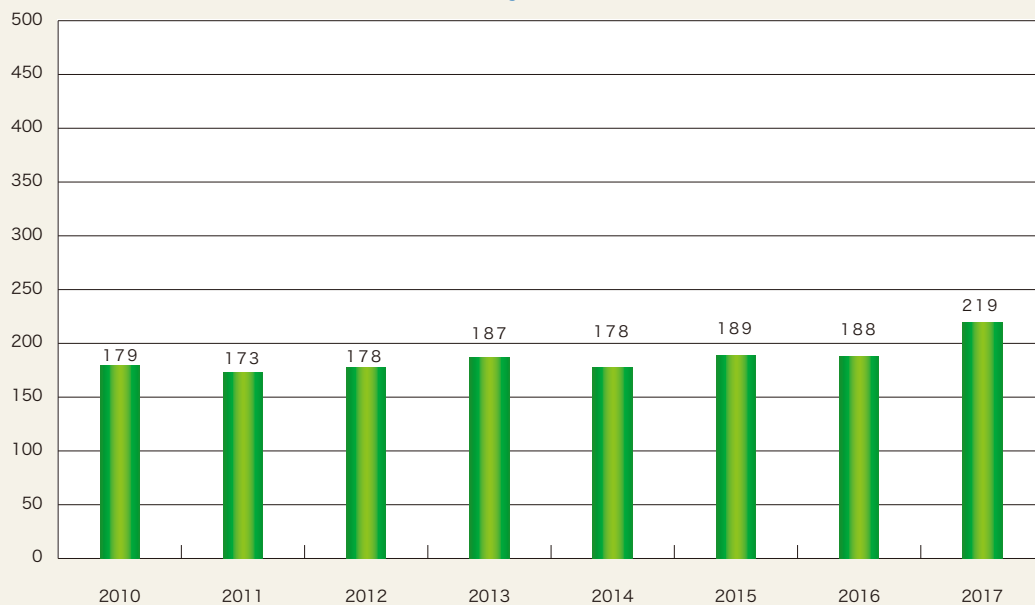
The emissions decreased by 6.5% in FY2017, compared with those of the previous fiscal year. The transfer increased by 16.5%.

Saitama Factory achieved a drastic reduction in emissions over two consecutive years by operating the newly-installed VOC processing systems.

Total Emissions (tons)



Total Quantity Moved (tons)



Overall environmental burdens from business activities in FY2017 (material flow)

We assess the environmental burdens from various emissions (OUTPUT) generated as a result of DYNIC's business and production activities involving raw materials, energy, and water resources (INPUT) in order to more effectively conserve those resources through more efficient use.

INPUT

◆Energy consumption : 12,937,000 L (of oil equivalent)

Power (Purchased) : 27,457 MWh

LNG : 1,652 tons

City Gas : 2,617,000 m³

Bunker A : 743,000 L

LPG : 28 tons

Gasoline : 13,000 L

◆Water consumption : 557,000 tons

Groundwater : 379,000 tons

Industrial water : 135,000 tons

Clean water : 43,000 tons

◆Total raw material input : 33,497 tons

Businesses



【 Dynec product groups 】

Publishing and Stationery Products/Print Media Supplies/Nonwoven Fabric Products/Apparel/
Household Products/Industrial Products/Special Embossed Products/Foil, Films, and Paper Products

OUTPUT

◆Greenhouse gas (CO₂ emissions)

Emissions attributable to production process : 25,813 t-CO₂

Emissions attributable to product logistics : 1,280 t-CO₂

※Product logistics activities are outsourced to affiliated companies.

◆Emission into the atmosphere

PRTR substances : 347 tons

NO_x : 18.25 tons

SO_x : 3.24 tons

Dust : 0.24 ton

◆Discharge into water system

Discharge : 468,000 tons

BOD : 0.47ton

COD : 1.52 tons

◆Discharge into soil : N/A

◆Chemical substances (PRTR substances)

Emissions into the environment : 347 tons

Transferred as waste : 219 tons

◆Total waste generation : 5,064 tons

Incineration/landfill disposal volume : 856 tons

Recycled wastes : 2,258 tons

Volume of valuables : 1,950 tons

Recycling rate : 83%

Environment-Related Products

Dynic Corporation is working hard on the development of various products that contribute to the development of society and creation of a life of affluence. We believe the delivery of such new products to society will lead to our contributing to society through our business activities.

At Dynic Corporation, we define “products that take the global and living environments into consideration” as “environment-related products” .

【Products that take the global environment into consideration】

■ Products that reduce the burden on the environment

▶ PVC-free, plastic-free, or solvent-free products

Non-vinyl-chloride file folders (eco-folders), olefin based cloth, paper bank transfer cards, EVA containers, waterborne coating book-binding cloth for file binders and notebooks, etc.,

▶ Products using recycled paper, recycled fiber, recycled resin

Paper cloth using recycled paper, paper cloth for use in textbooks, paper cloth for use in backing, carpet using recycled polyester,

* Eco Mark adhesive interlining cloth,* etc.

▶ Products using sustainable natural resources

* FSC certified paper cloth (Epalon), rayon 100% color nonwoven fabrics (Panelon color sheet), biodegradable resin-based PLA vehicle interior materials, etc.

■ Products that take treatment and disposal into consideration

▶ Products that take ease of disposal into consideration

Paper blades for cutting polyethylene food wrap and aluminum foil, paper lid materials for milk drinks, etc.

▶ Products that contribute to resource-saving / 3R (Reuse, Recycle, Reduce)

Reuse toner cartridges; reuse TTRs; sub-cassettes for refill, automotive headliner material (lightweight), desiccant for organic EL devices (durable), etc.

【Products that take the living environment into consideration】

▶ Products that provide comfortable spaces

Deodorant Panelon filters, antimicrobial and deodorant wallpaper, negative-ion-radiating wallpaper, filter materials for air purifiers, antivirus wallpaper, sound-absorbing nonwoven floor fabrics, etc.

▶ Products useful for maintaining the freshness of health products/food

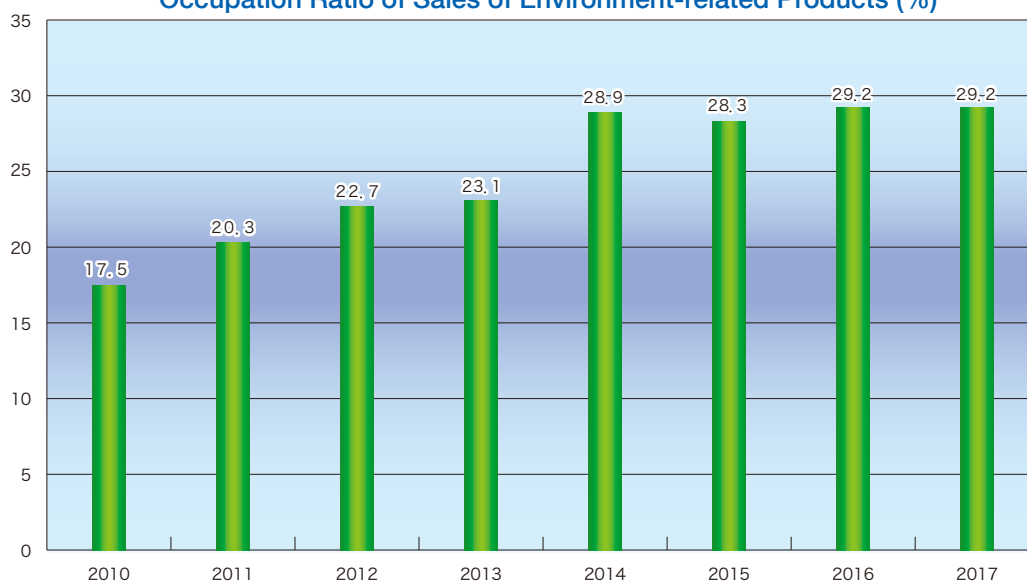
Water-resistant food packaging, food freshness preservatives, NIKKUSEBEN nylon-coated labels* (Echo-tech registered), mold-releasing film for cataplasm, etc.

▶ Various antimicrobial/deodorant products

Cloth for antimicrobial book binding, antimicrobial packaging materials, etc.

Products marked with an asterisk [*] are third-party certified products.

Occupation Ratio of Sales of Environment-related Products (%)



You can find the individual explanations of such environment-related products on our home page.

With "Contribute to society through environment-related products" as a key phrase, we have actively promoted product development.

The share of environment-related products in our FY2017 sales was 29.2%, which was the same high percentage as in the previous year.

In the future, we intend to further increase the percentage of our overall sales comprising environment-related products, thereby contributing to society.

FY2017 Environmental Activities

Reducing the environmental burden - Installation of energy-saving equipment

●Use of high-efficiency boiler

We replaced three steam boilers with high-efficiency ones in Oji Factory. We have always used city gas. The new boilers allow for combustion control at multiple positions for more efficient operation. The blowers are now upgraded with inverters, which help control the system more efficiently. In addition, the boilers support low-temperature combustion and help reduce the generation of air pollutants, including NOx and CO2. (Updated in October 2017)



●Deployment of high-efficiency air conditioners/freezers

Partly funded by the METI's business support program for efficient energy consumption, we replaced conventional air conditioners and freezers with high-efficiency ones in Shiga Factory. The energy-saving equipment is expected to reduce energy consumption by the equivalent of 20 kl of oil annually. (Updated in December 2017)



Freezers replaced in the First Factory



Air conditioners replaced in the Technical building

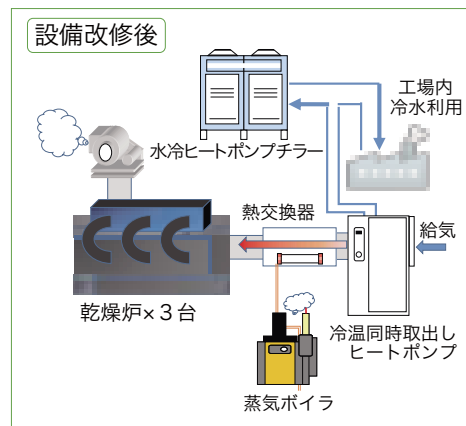


FY2017 Environmental Activities

Toward less environmental burden - our energy saving initiatives

●A letter of appreciation was given for our energy saving efforts through our use of heat pumps in the production process

We installed a simultaneous-heating-and-cooling heat-pump system at Shiga Factory in FY2015. The system effectively reduced steam use and freezer power consumption. A letter of appreciation was given for our initiative from the Heat Pump and Thermal Storage Technology Center of Japan (HPTCJ). (July 2017)



Source: The HPTCJ "COOL & HOT"

●We achieved our CO2 reduction objectives

Saitama Factory works for higher energy efficiency and reduction of CO2 emissions. The Factory achieved the reduction objectives set forth in Saitama's first emission reduction program (FY2011 - 2015).

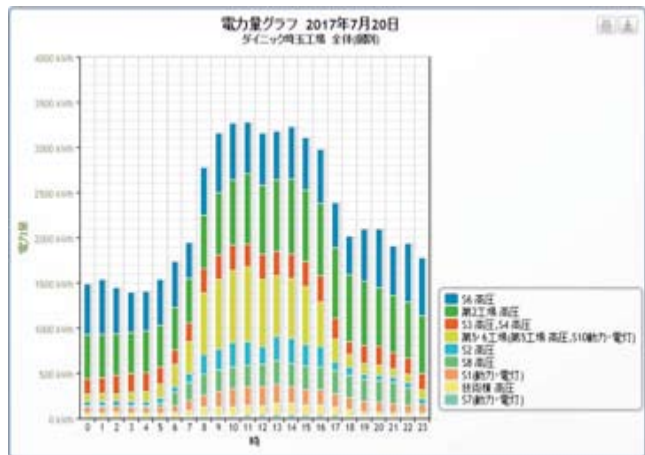


FY2017 Environmental Activities

Toward less environmental burden - our energy saving initiatives

●Implementation of FEMS

Saitama Factory implemented a system that visualizes power consumption known as “factory energy management system (FEMS)” to effectively reduce energy consumption. We analyzed the available measurements and identified key issues to effectively reduce energy consumption. (FEMS started in April 2017)



●Implementation of demand controller

Shiga Factory installed a demand controller to curb peak power demands in the summer and winter seasons. The system controls sixty-five (65) air conditioners in the factory and manages power to dramatically reduce power consumption. (The system became operational in December 2017)



FY2017 Environmental Activities

Working together with the local community

●Participation in trash pick-up campaign

Local community members collectively pick up trash in Taga-cho, Shiga prefecture, where the Shiga Factory is located, once a year around May 30th, which is designed as “zero-trash day” by the prefectural government to raise environmental awareness. We participated in the campaign and cleaned up the area adjacent to the factory, which spreads along national highway No. 306, on June 13th.



Saitama Factory personnel clean up the areas near the factory and along prefectural highway No. 14 every month as a part of the community clean-up campaign.

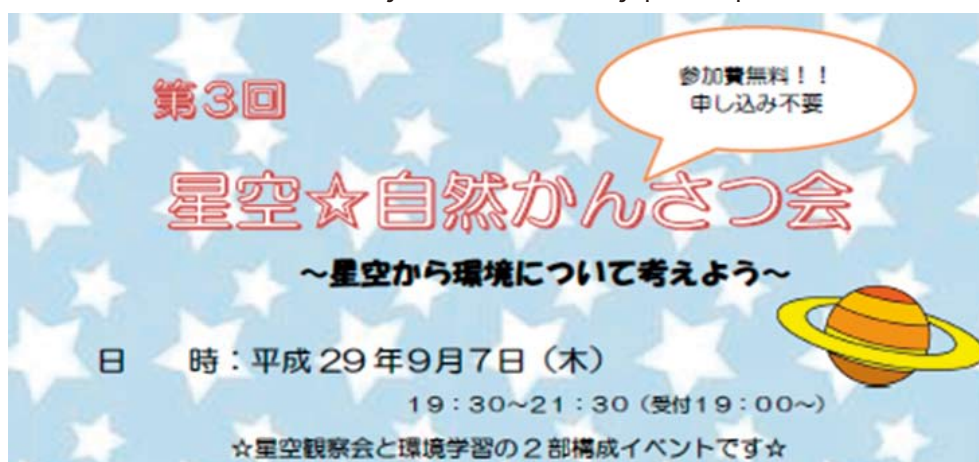


FY2017 Environmental Activities

Working together with the local community

●Contribution to the community

The Dynic AstroPark Observatory, which is located in Shiga Factory, gives stargazing parties for members of the local community to look at the stars through the observatory's astronomical telescope, and organizes traveling stargazing events with mobile astronomical telescopes. We organize these events to integrate ourselves into the community. Last fiscal year, we had three times of starry sky and nature-watching sessions, "Hoshizora-Shizen Kansatsu Kai," under a co-sponsorship with the Taga-cho government. The events successfully attracted many participants.



●Satoyama (countryside) preservation activities

Four members of our staff participated in an activity to rake fallen leaves organized by Honjo Waseda Research Park at the Okuboyama site, Honjo Campus, Waseda University. The leaves gathered were composted and used in the fields.





Environmental Report 2018

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