



# Environmental Report 2015

***Denyo***  
 **Denyo Co., Ltd.**

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# Editorial Statement



## Information Disclosure

Denyo Co., Ltd. will use the media shown below to disclose information to all stakeholders about its environmental initiatives aimed at delivering a sustainable society.

### 【Annual Environmental Report】



<http://www.denyo.co.jp>



## Reporting Period

Fiscal 2015 (April 2014 to March 2015) and for some content, the periods before and after.

## Publication Date

October 2015

## Guidelines

Environmental Reporting Guidelines (2012), Ministry of the Environment

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## Disclaimer

This Environmental Report may contain predictions or forecasts about the future. Actual results may vary from forecasts due to a variety of factors.

# Management



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# Management



## Message from the President



Thank you for reviewing the Environmental Report of Denyo Co., Ltd. I would also like to thank you for your interest in our company.

Our lives as human beings are much richer than in the past. On the other hand, environmental problems have grown more serious, such as the reduction of resource, abnormal weather and so on. The business activities which aimed at a sustainable society is demanded essentially.

Under such circumstances, Denyo Co., Ltd. will think daily about what we can do as a company in "Developing Technology Tomorrow's Power Needs" and tackle environmental problems seriously, aim to make the superior product simultaneously.

October 2015

Shigeru Koga, President  
Denyo Co., Ltd.



## Environmental Philosophy

As well as contributing to social infrastructure upgrades worldwide through our power source products, Denyo is profoundly aware of its corporate social responsibility to conserve the environment, and tirelessly promotes environmentally sound business activities.



## Environmental Policies

1. In our business activities, we strive to prevent pollution and to promote eco-friendly products while seeking ways to maintain a healthy environment by conserving materials and energy, cutting back on solid waste, and reducing odors and noise.
2. We comply with environmental regulations and other agreed requirements, and we respect related demands from society.
3. As well as building a system of management to engage with environmental conservation and finding ways to make continual improvements, we set environmental goals and targets, and improve environmental performance by carrying out reviews.
4. As well as documenting the environmental policies to inform employees and everyone who works on behalf of the company, we disclose the information in the public domain.

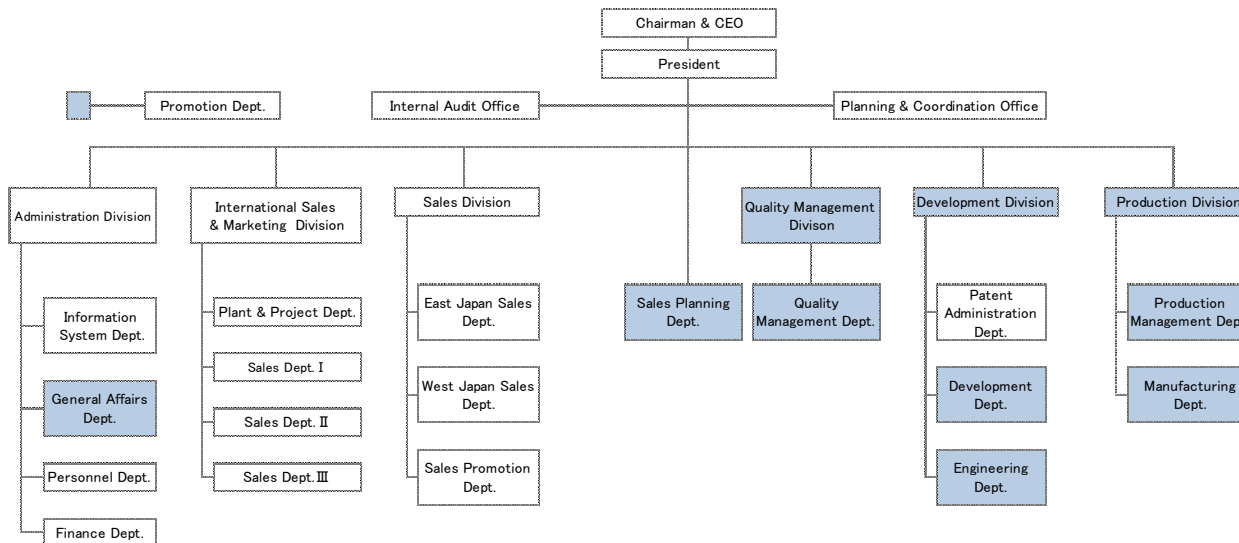
# Management



## Environmental Management Structure

### Promotion System

Denyo is carrying out promotion activities aimed at reducing the total environmental impact by the following promotion Dept. intensively.



※A part of International Sales & Marketing Division and Sales Division is responsible for the promotion activity.

### ISO14001 Certification

We obtained ISO14001:2004 certification for our environmental management systems on October 19, 2006. We control CO2 emissions by conserving resources and energy. Through our business, we also carry out activities aimed at reducing the total environmental impact.

# Management



## Environmental Targets and Achievements

To implement environmental management, we set targets for each financial year and carry out evaluations from time to time.

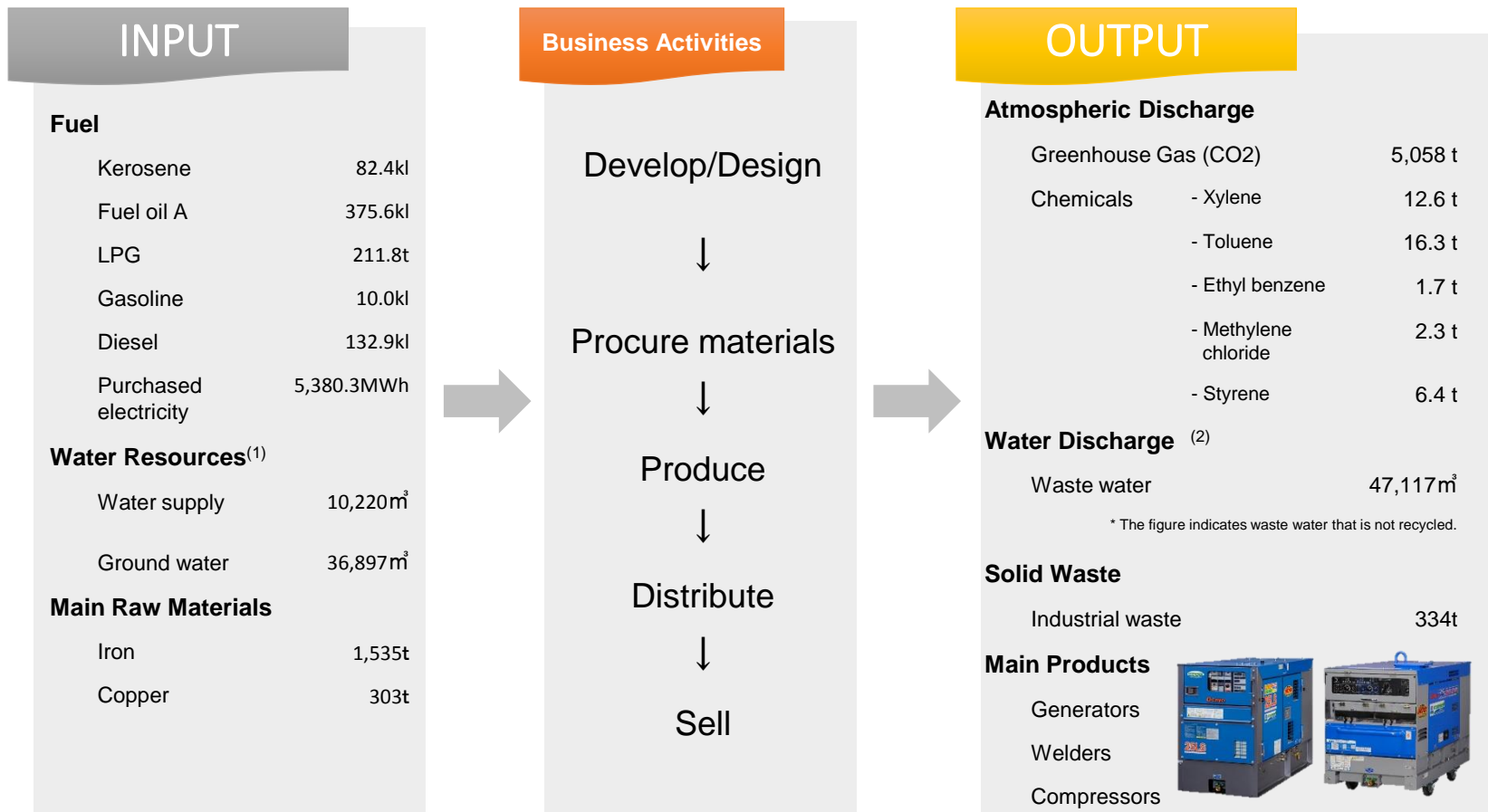
Item	FY2015 Target	FY2015 Achievements	FY2016 Target
Develop products with high environmental performance	[ Develop Eco-friendly Products ] We will develop eco-friendly products.	We developed the products that complies with exhaust gas regulations.	[ Develop Eco-friendly Products ] We will develop eco-friendly products.
Formation of a recycling-based society	[ Reduce Solid Waste ] By the end of FY2015, we will cut the volume of industrial waste per output by at least 10% compared to FY2012 levels.	-1.8% year-on-year reduction in discharge volume compared to FY2012 levels -8.3% year-on-year reduction per output compared to FY2012 levels	[ Reduce Solid Waste ] By the end of FY2016, we will cut the volume of industrial waste per output by at least 10% compared to FY2012 levels.
	[ Conserve Energy ] By the end of FY2015, we will cut the volume of crude oil equivalent energy used per output by at least 15% compared to FY2012 levels.	- 18.2% year-on-year reduction in consumption volume compared to FY2012 levels - 23.9% year-on-year reduction per output compared to FY2012 levels	[ Conserve Energy ] By the end of FY2016, we will cut the volume of crude oil equivalent energy used per output by at least 25% compared to FY2012 levels.
Contribute to society	[ Green and Clean Tactics ] Carry out maintenance and cleaning activities in at least one place in green belts adjoining the areas around our business facilities.	- We cleaned and mowed around the Fukui and Shiga Plants. - The Development Department cleaned and mowed surrounding the Laboratory & Training Center. And we obtain the "Good greening plan certification" due to the green arrangement and maintenance situation is certified by Saitama Prefectural Department of Environment. - The General Affairs Department cleaned around the head office building.	[ Green and Clean Tactics ] Enhance maintenance in green belts adjoining the areas around our business facilities.

# Management



## Environmental Impact Overview

At Denyo, we understand the material input for our business activities and we endeavor to reduce the environmental impact.



N.B.  
(1) and (2) are totals for the Fukui and Shiga Plants.



# Eco-Friendly Products



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# Eco-Friendly Products



## Developing Products with High Environmental Performance



### Simul Generator

The Simul Generator incorporates independent windings for three-phase and single-phase circuits to open the way for a three-phase output and a single-phase three-line output at the same time. Without cumbersome switching operations, it is serviceable on a wide variety of sites.

With our conventional models, three-phase motors in submersible pumps, compressors and other devices and single-phase loads such as lighting and air conditioners could not be used at the same time without carrying and installing both a three-phase generator and a single-phase generator. This can be done with just a single Simul Generator unit. It thus produces higher environmental performance in terms of transport and installation.

In addition, it is equipped as standard with an environmentally friendly base that minimizes fuel spillage outside the generator in the event of fuel leakage. This allows it to be used without concern near rivers, harbors and elsewhere where strict installation criteria apply.



DCA-45LSKE-D



### Hybrid Floodlight

The Hybrid Floodlight features a combination between a battery and an engine. In consideration of the environment, it reduces noise and exhaust emissions.

While idle in the daytime, it recharges its battery. While in operation for work at night, it consumes the electricity stored in the battery to operate the lamps. It thus eliminates noise and exhaust emissions and enables work to be undertaken late at night in consideration of the surrounding environment.

When the remaining battery level falls to 10% or less as a result of lamp operation, it automatically starts up the engine generator to keep the lamps lit while recharging the battery. When the battery is recharged to full capacity, it automatically stops the engine generator and works as a battery-powered floodlight.

With fuel consumption of at least 10% less than our engine-powered floodlight, it is friendly to the environment in terms of fuel consumption as well.



PL-104LB-G

# Eco-Friendly Production



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# Eco-Friendly Production



## Global Warming Prevention

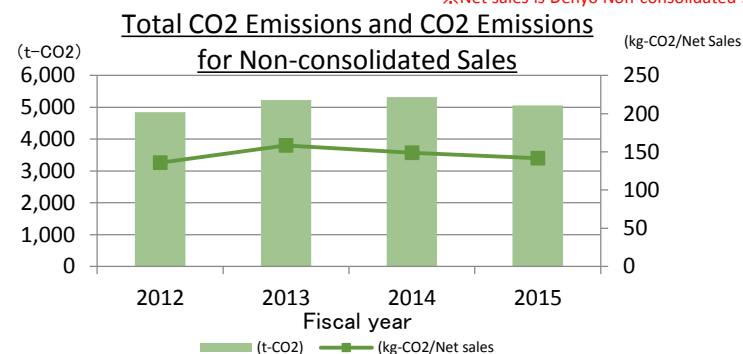


### Reduce CO2 Emissions

Denyo endeavors to prevent global warming through initiatives to reduce CO2 emissions due to business activities. CO2 emissions in FY2015 were 5,058 tons, an increase of 4.3% from the FY2012 levels. This is because of the increase of conversion factor for CO2 emission coefficients for power consumption, which are determined by electric power companies. Our power consumption before conversion to CO2 emissions coefficients decreased 13.6% from the FY2012 levels. The amount of the consumption of fuels also decreased 19.0% from the FY2012 levels. We will continue to implement initiatives to cut CO2 emissions during FY2015.

	Power consumption (thousand kWh)	Fuel consumption (GJ)	CO2 emission after conversion (t)	CO2 emissions/ Non-consolidated sales (kg)
FY2015	5,380.3	33,825.2	5,058	141.7
FY2012	6,224.3	41,736.6	4,850	135.9
Change from FY2012	△ 13.6%	△ 19.0%	4.3%	4.3%

※Net sales is Denyo Non-consolidated Sales

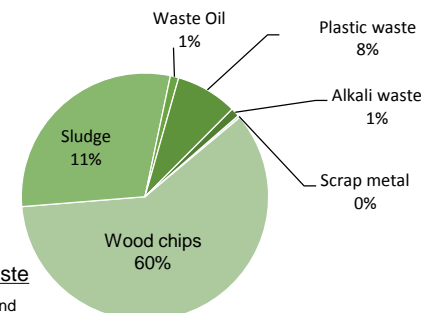


## Formation of a Recycling-based Society



### Reduce Solid Waste

We manage and process solid waste appropriately and in compliance with all laws and ordinances. In FY2015, we discharged about 334 tons of industrial waste, down by 8.3% per output compared to the FY2012 levels, which is far above the target. We are also working toward a new target of cutting the volume of industrial waste per output by at least 15% compared to FY2012 levels by the end of FY2017.



Breakdown of Total Solid Waste

\*Total for the Fukui and Shiga Plants and the Distribution Center

# Eco-Friendly Production



## Managing Chemicals

### Managing Chemicals Subject to PRTR

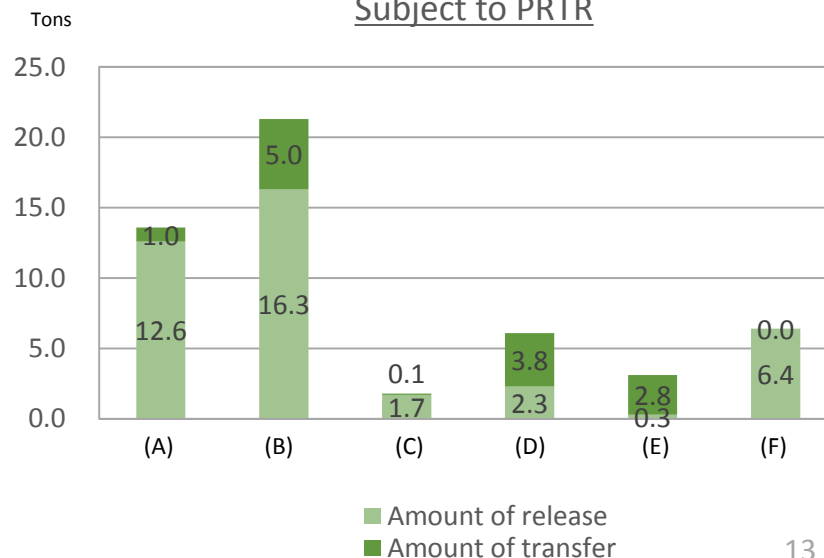
Based on the PRTR Law, we compile and release data on chemicals subject to the PRTR including amounts released into the environment or transferred as solid waste.

\*A Pollutant Release and Transfer Register (PRTR) is a system for compiling and disclosing data on hazardous chemical substances including their sources, how much is released into the environment or transferred off-site with solid waste.

Substance	Amount released to the atmosphere	Amount of transfer
(A) Xylene	12.6	1.0
(B) Toluene	16.3	5.0
(C) Ethyl benzene	1.7	0.1
(D) Methylene chloride	2.3	3.8
(E) Tetrahydromethyl phtalic anhydride	0.3	2.8
(F) Styrene	6.4	0.0

(Unit: tons)

Amount of Release and Transfer of Chemicals Subject to PRTR



# Topics



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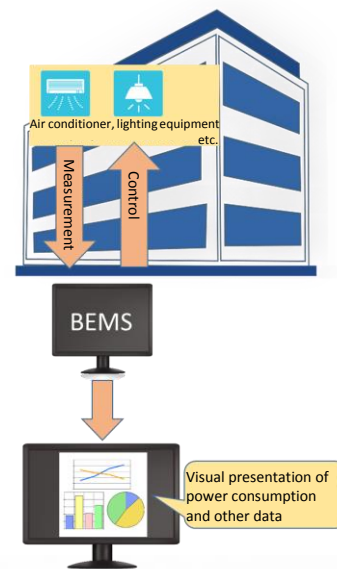
# Topics



## Environmental Measures at the Head Office

### Introduction of BEMS

Denyo has been operating a building energy management system (BEMS) at its head office since FY2013 in a bid to reduce its peak power consumption and achieve energy conservation. BEMS is an energy management system that provides a visual presentation of power consumption and other data in a building for heightening efficiency in the use of electric energy. Paving the way for the automated control of air conditioning and other systems and for lowering peak power consumption, it contributes to energy conservation and CO<sub>2</sub> emission reduction.



## Environmental Measures at Development Sites



### Planting initiative

The Laboratory & Training Center has grass surrounding its building, and it carries out trimming and other treatment of the vegetation around its premises. As a result, it has been certified by the Department of Environment of the Saitama Prefectural Government to have formulated an excellent tree planting plan in recognition of the layout, maintenance and management of plants. Apart from this, our head office also conducts planting on its rooftop while our production sites push ahead with tree planting and engage in the development and cleaning of weed zones.

# Topics



## Environmental Measures for Production Base



### LED Lighting

At the Fukui Plant, the changeover of ceiling lighting from mercury lamps to LED lamps is in progress.

Replacement with LED lighting helps cut energy consumption significantly while maintaining light intensity. Lower power consumption leads to lower CO<sub>2</sub> emissions.

LED lighting generates limited heat from the lighting equipment and has little impact on the room temperature. It helps boost the effect of air conditioning in summer and slashes power consumption for non-lighting equipment as well.

Containing no mercury or other hazardous substances, LED lamps are friendly to the environment and have a longer life span than mercury lamps, thereby reducing the maintenance workload in terms of lamp replacement.

Denyo will continue to strive toward cutting its environmental impact.



### Five-S Initiative

The Fukui Plant regularly carries out the five-S initiative.

The photos on the left show the pallet depot before and after tidying activities. Differentiating what is necessary from what is not needed and tidying up what is necessary helps to prevent unexpected accidents and increase work efficiency.

The Denyo Group will continue to improve its workplace environment.



Before tidying activities



After tidying activities



*Developing Technology Tomorrow's Power Needs.*

**Denyo<sup>®</sup>**

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