Standards for Calculating Environmental Performance Indicators

[1] For the period April 1, 2015 to March 31, 2016
[2] Calculation performed with reference to Environmental Reporting Guidelines, 2012 edition, Ministry of the Environment.

INPUT	Environmental performance indicator	Standards for calculation, etc.	Calculation method, etc.
Procurement	Procurement rate for environmentally conscious products (%)	–	Value of environmentally conscious products procured divided by value of all products procured Environmentally conscious products: recycled paper and non-chlorine bleached pulp paper; forest-certified and other paper; biodegradable and recycled film and other plastics; plant oil-based ink, recycled solvents, and other environmentally certified products
Production	Energy consumption (kl or TJ)	Act on the Rational Use of Energy Act on Promotion of Global Warming Countermeasures	Total of all energy consumed annually × calorie conversion factor for each energy type Calorie conversion factors for city gas are calculated according to the caloric values in Appendix 4, "List of City Gas Suppliers and Supplied Quantity of Heat" (revised April 15, 2013) of the Requirements for Filling Out Periodic Reports Based on Articles 15 and 19-2 of the Act on the Rational Use of Energy. For other types of energy, calculations were performed using the caloric values listed in the revised Act on Promotion of Global Warning Countermeasures (an enforcement ordinance published March 31, 2010 by the Ministry of the Environment and the Ministry of Economy, Trade and Industry).
	Electricity (million kWh)		Electric power annual procurement
	City gas (million Nm^3)		Annual procurement of city gas
	LPG (million kg)		LPG annual procurement
	LNG (million kg)		LNG annual procurement
	Fuel oil, kerosene, diesel fuel, gasoline (kl)		Annual fuel procurement
	Steam (TJ)		Annual steam procurement
	Water consumption (million m^3)	–	Annual consumption of municipal water, well water, and industrial water
	Input volume of principal raw materials (kt)	–	Total weight of paper, plastic, ink, metals, etc. used in production plants
	Principal secondary materials (kt)	–	Total weight of solvents, acids, alkalis, etc. used in production plants
Distribution	Energy usage during shipment of goods (kl)	Act on Promotion of Global Warning Countermeasures	Calculation of petroleum energy used in shipping, in accordance with the Act on Promotion of Global Warming Countermeasures
Recycling	Recycled solvent (kt)	–	Utilization of recycled solvents in own and externally contracted production facilities
	Recycled acid and alkaline (kt)	–	Utilization of recycled solvents in own and externally contracted production facilities
	Recycled water (million m^3)	–	Water recycled or recirculated in own production plants
	Vapor generated from waste heat recovery (tons)	–	Steam generated through heat from odor reduction equipment and furnaces

OUTPUT	Environmental performance indicator	Standards for calculation, etc.	Calculation method, etc.
Atmospheric emissions	Greenhouse gas emissions (kt-CO_2 equivalent)	Act on the Rational Use of Energy Act on Promotion of Global Warning Countermeasures	Greenhouse gas emissions from electric power consumption, fuel consumption and combustion, waste incineration, and from emissions to the atmosphere of HFC, PFC, and SF_6 are calculated for city gas according to the caloric and emission values in Appendix 4, "List of City Gas Suppliers and Supplied Quantity of Heat" (revised April 15, 2013) of the Requirements for Filling Out Periodic Reports Based on Articles 15 and 19-2 of the Act on the Rational Use of Energy. For other forms of energy, calculations were made using caloric and emissions values listed in the revised Act on Promotion of Global Warning Countermeasures (an enforcement ordinance published March 31, 2010 by the Ministry of the Environment and the Ministry of Economy, Trade and Industry). Note however that electricity emission factors from electricity consumption for the past year were calculated using the Federation of Electric Power Companies of Japan's 2005 emissions unit as detailed on page 20. Emissions for offshore sites were calculated using factors drawn from sources such as the Greenhouse Gas Protocol and the U.S. Department of Energy.
	SOx emissions (tons)	Air Pollution Control Act, etc.	Calculated based on emissions volume per unit time and duration of operation Sulfur oxide (Nm^3/h) × annual hours of facility operation (h) × 64/22.4 × 10^{-3}
	NOx emissions (tons)		Calculated using the formula for NOx emissions in the calculation graph from the "Environmental Activity Evaluation Program," Ministry of the Environment, 1999
	Dichloromethane (tons)	–	Total emissions to the atmosphere from plants handling at least 1 ton annually
	Chlorofluorocarbons (tons)	–	Total emissions to the atmosphere from plants handling at least 1 ton annually
	Dioxins and dioxin-like compounds (mg-TEQ)	–	Total emissions to the atmosphere from incineration in own furnaces
	VOC emissions (tons)	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Law)	Annual use by individual production plant of chemical substances subject to the PRTR Law reporting is the amount exceeding the exemption cutoff. For other VOCs, the figure shown is the total of VOCs amounting to 1 ton or more of emission to the atmosphere.
Emissions to waters	Water discharged (million m^3)	–	Annual emissions to public waters and sewer systems
	COD emissions (tons)	Water Pollution Control Act	Calculated from annual discharged water and average concentration to which the Water Pollution Control Act applies. COD concentration (mg/l) × annual designated water discharge (m^3) × 10^{-6}
	Nitrogen emissions (tons)		Calculated from annual discharged water and average concentration to which the Water Pollution Control Act applies. Nitrogen (mg/l) × annual designated water discharge (m^3) × 10^{-6}
	Phosphorous emissions (tons)		Calculated from annual discharged water and average concentration to which the Water Pollution Control Act applies. Phosphorus concentration (mg/l) × annual designated water discharge (m^3) × 10^{-6}
Waste emissions	Undesired materials generated (kt)	Waste Management and Public Cleansing Act	Total of valuable substances sold, outsourced processing and amount sent to own processing facilities
	Waste emissions (kt)		Total outsourced waste processing
	Waste per unit of production (tons/billion yen)		Calculated from waste emissions and DNP consolidated sales Domestic figures calculated based on domestic sales
	Final disposal volume (kt)		Of outsourced waste processing, the total disposed of in landfills after direct or indirect processing
	Final disposal rate (%)		Final disposal volume ÷ undesired materials production volume
	Recycle rate (%)		For paper, plastic, metal, and glass, calculated as: (amount of valuable materials + amount of materials recycled as resources + volume of thermal recycling) / undesired materials production volume
	Zero emissions		Calculated as final disposal volume / undesired materials production volume, and defined as less than 0.5%
	Used paper segregation/collection (tons)		Office paper collected
Scope 3	Greenhouse gas emissions (million tons-CO_2 equivalent)	"General Guidelines on Supply Chain GHG Emission Accounting, Ver 1.0" published by the Ministry of Economy, Trade and Industry and the Ministry of the Environment	Activity data × Emission factor

Products and services	Environmental performance indicator	Standards for calculation, etc.	Calculation method, etc.
Environmentally conscious products and services	Sales of environmentally conscious products and services	–	Total sales of Eco-Products and Super Eco-Products, as determined by a point scale rating of degree of environmental consciousness from a product lifecycle standpoint
CO_2 emissions after product shipment	CO_2 emissions (kt-CO_2)	General Guidelines on Supply Chain GHG Emission Accounting, Ver 1.0	Total value of Scope 3 categories 4 (partial), 9, 10, 11, and 12