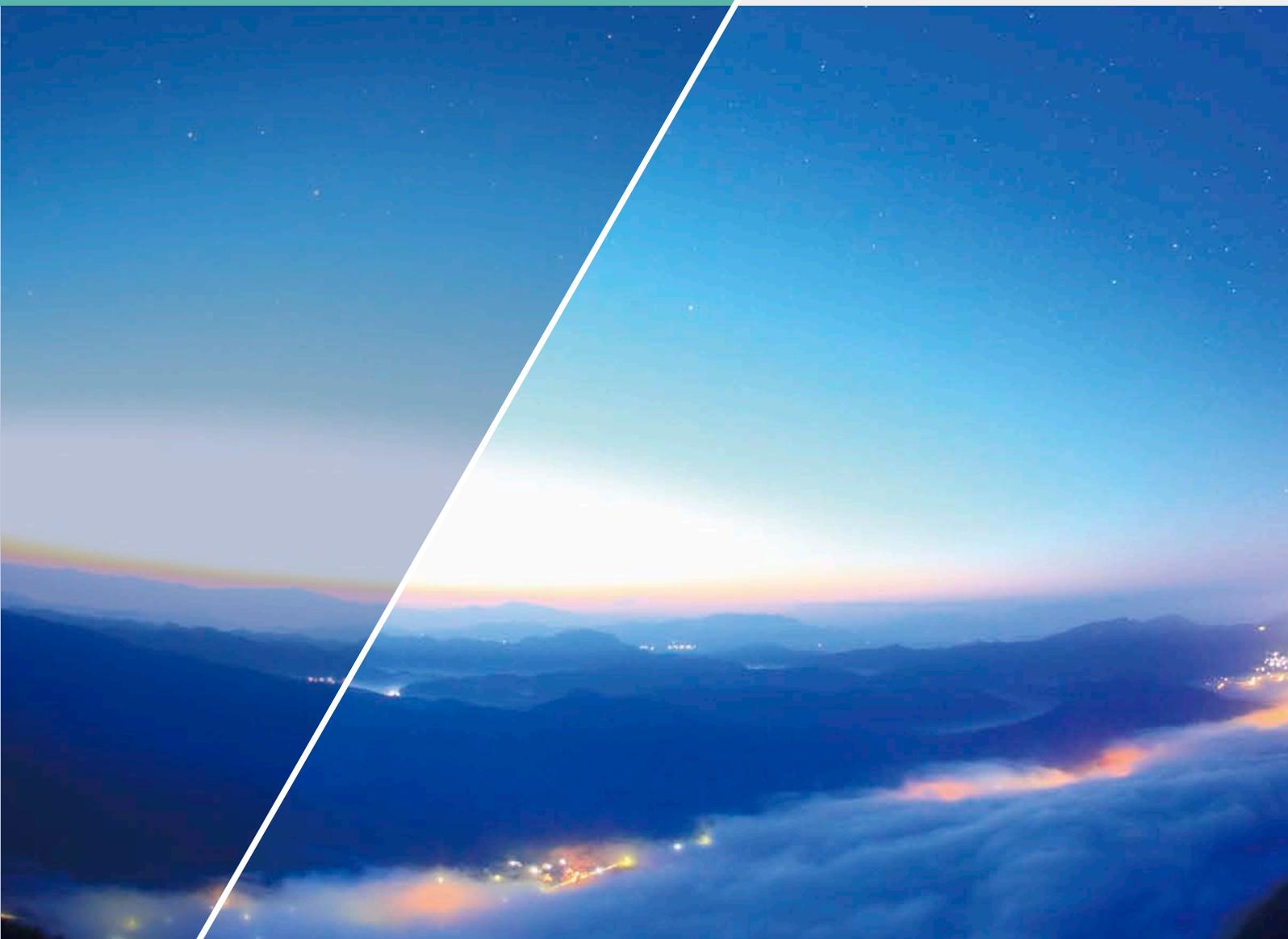


Kawasaki Environmental Report 2015



Editorial Notes 3

Promoting Environmental Management 4

- Chief Environmental Officer's Message
The goal is to realize a sustainable society.
- Environmental Charter
- Environmental Management Platform
- Progress on Eighth Environmental Management Activities Plan and Environmental Vision 2020

Summary of Environmental Activities in Fiscal 2015 8

- Fiscal 2015 Targets and Evaluation of Results
- Material Balance of Business Activities for Fiscal 2015 (Overall Picture of the Environmental Impact)
- Environmental Accounting Calculations for Fiscal 2015

Realization of a Low-Carbon Society 11

- Reduction in CO₂ Emissions from Production Activities
- CO₂ Reduction Through Product-based Contributions
- Use of Energy Visualization System
- Focus: Using the energy visualization system, employees are able to implement energy-saving improvements on their own.
- Reduction of Greenhouse Gas Emissions in Logistics Processes
- Utilizing Renewable Energy
- Estimating CO₂ Emissions in Supply Chain

Realization of Recycling-Oriented Society 15

- Promoting reduction in waste generation, greater reuse and more recycling
- Promoting PCB treatment
- Using an Electronic Manifest System

Realization of a Society Coexisting with Nature 16

- Chemical Substance Reduction
- Conserving Water
- Forest conservation activity
- Biodiversity-Friendly Society
- Responding to the ELV Directive, the RoHS Directive, and the REACH Regulation

Establishment of environmental management systems 18

- Using IT Systems
- Kawasaki Group EMS
- Compliance with Laws and Regulations
- Risk Management
- Promoting Environmental Communication
- Environmental e-Learning
- Cultivating Qualified Managers
- External Information Disclosure

Environmental Contribution Through Products 21

- Product Assessment
- Kawasaki Green Product Promotion Activity
- Focus: Kawasaki Green Products Lessen Environmental Impact
- The Second set of Kawasaki-brand Green Products
- Topics: Approach by the Motorcycle & Engine Company

Environmental Data 30

- Kawasaki's Environmental Load Data
- Environmental Load Data by Business Site
- Environmental Data of Subsidiaries

Editorial Notes

Period

The report covers fiscal 2015 (April 1, 2014 to March 31, 2015). However, some activities from outside this period are also included. For overseas subsidiaries, the dates of the fiscal year and the period covered by statistics may differ depending on their country of location.

Scope

Kawasaki Heavy Industries, Ltd. (including some subsidiaries).

Frequency of issue: The report is intended as an annual publication to be issued once every year.

Edited and issued by: General Administration Division Environmental Affairs Department

Editorial responsibility: General Manager, General Administration Division

Guidelines

In preparing the report, the editorial office referred to the Environmental Reporting Guidelines (2012 Edition) issued by the Ministry of the Environment and the Sustainability Reporting Guidelines (G4 ver.) issued by the Global Reporting Initiative (GRI).

Disclaimer

This report not only describes actual past and present conditions at the Kawasaki Group but also includes forward-looking statements based on plans, forecasts, business plans and management policy as of the publication date.

These represent suppositions and judgments based on information available at the time. Due to changes in circumstances, the results and the features of future business operations may differ from the content of such statements.

Promoting Environmental Management

Chief Environmental Officer's Message

The goal is to realize a sustainable society.



Chief Environmental Officer
(Managing Executive Officer)

Ikuhiro Narimatsu

The Kawasaki Group stands firmly behind its Group Mission: “Kawasaki, working as one for the good of the planet (Enriching lifestyles and helping safeguard the environment: Global Kawasaki).” In 2010, Kawasaki drafted its Environmental Charter along with Environmental Vision 2020, which defines the Group’s identity in 2020 from an environmental perspective, fully aware that the realization of a sustainable society requires contributions from corporate citizens to resolve issues of concern to society, particularly climate change, resource depletion, ecosystem protection and environmental risk. As a group, we vigorously pursue initiatives in four key areas—(1) realization of a low-carbon society, (2) realization of a recycling-oriented society, (3) realization of a society coexisting with nature, and (4) establishment of an environmental management system (EMS)—to achieve our vision.

Since the Great East Japan Earthquake struck on March 11, 2011, efforts to deal with a tight electricity supply-demand balance and rising energy costs have acquired greater urgency. Moreover, the Intergovernmental Panel on Climate Change has stated that greenhouse gas

emissions from man-made sources are most likely the cause of global warming. Because of this, Kawasaki formulated specific action plans under the Eighth Environmental Management Activities Plan that will link progress in environmental management to an improvement in business indicators as well. For example, we began rolling out the energy visualization system to all sites in fiscal 2014 to eliminate waste and irregularities in energy usage. For this measure, we are aiming for a 5% reduction in energy costs in fiscal 2016. In addition, with the program Kawasaki Green Products Promotion Activity, we have a system to assess and register Kawasaki-brand products demonstrating superior environmental performance as Kawasaki Green Products, which serves to fuel the development, production and widespread use of environment-friendly Kawasaki-brand products that contribute to a huge improvement in the environment.

I hope that the information contained in Kawasaki Environmental Report 2015 will provide you with a deeper understanding of the Group’s pursuits in environmental management.

Environmental Charter (established 1999, revised 2010)

Environmental Philosophy

The Kawasaki Group pursues business activities globally in key industries related to land, sea, and air, guided by the desire to contribute to the development of society through monozukuri manufacturing. In this effort, as a group, we emphasize the “realization of a low-carbon society,” “realization of a recycling-oriented society,” and “realization of a society coexisting with nature” to help solve global environmental issues, and we strive to help build a sustainable society through environmentally harmonious business activities and environmentally conscious Kawasaki-brand products and services.

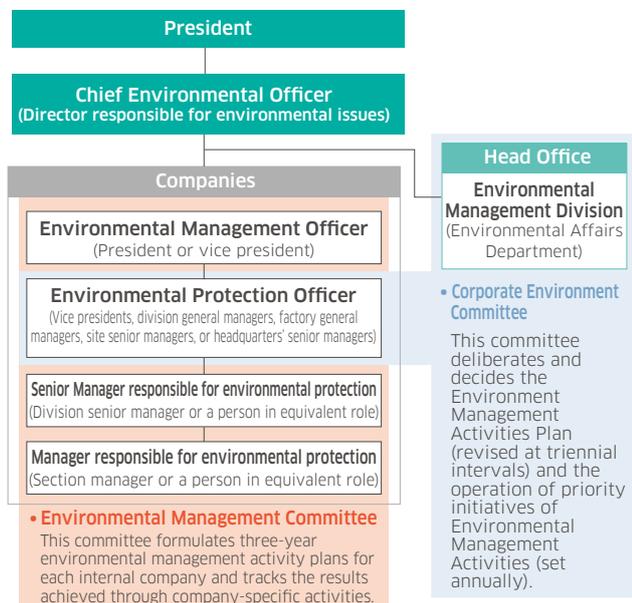
Conduct Guidelines

- 1 Global environmental problems are serious issues shared by people around the world and, making it a management priority to ensure that business activities are conducted in harmony with the environment, we will strive willingly and vigorously toward this goal.
- 2 We will endeavor to conserve resources, save energy, recycle, and reduce industrial waste in production stages, and we will promote efforts to limit the impact of our operations on the environment.
- 3 We will carefully consider environmental impact during product planning, R&D and design stages to limit as much as possible any environmental impact caused during procurement, production, distribution, utilization and disposal stages of the products we make and market.
- 4 We will strive to minimize the impact our business activities have on ecosystems and engage proactively in efforts to protect these ecosystems.
- 5 In seeking solutions to global environmental issues, we will develop and provide new technologies and new products that effectively contribute to environmental protection and reduced consumption of energy and natural resources.
- 6 Going beyond environment-related laws, regulations and conventions and self-established action plans in related industries, we will implement our own environmental control standards, as appropriate, and strive to improve environmental management levels.
- 7 Through environmental training and public relations activities, we will strive to elicit greater awareness of global environmental issues among all employees and will encourage employees to perform a self-improvement review and participate in social contribution activities.
- 8 We will implement an environmental management system for environmental protection activities, hold regular conferences on environmental protection activities, undertake reviews, and strive to achieve continual improvement in our environmental protection activities.

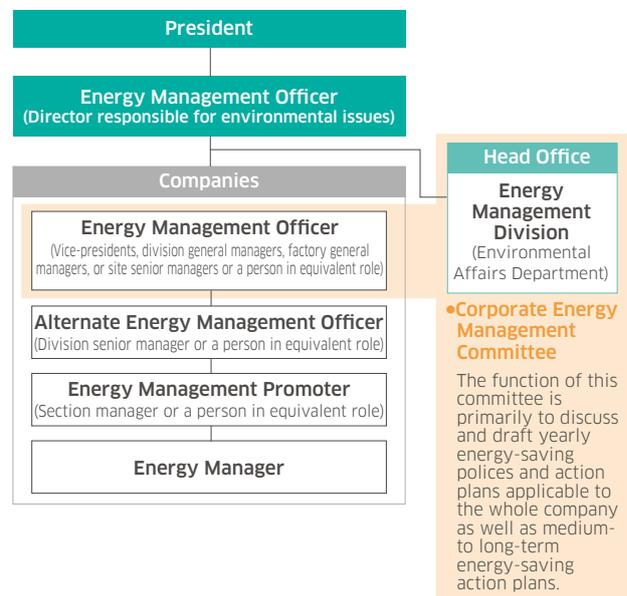
Environmental Management Platform

Under the Group's environmental management structure, the Corporate Environment Committee, chaired by the chief environmental officer (director responsible for environmental management), discusses various key issues and determines measures related to the environment. In addition, an environmental management officer, an environmental protection officer, a senior manager responsible for environmental protection, and a manager responsible for environmental protection are appointed at each internal company, and measures decided by the Corporate Environment Committee are then implemented by each internal company. Each internal company undertakes a regular review of results and welcomes feedback on the status of ongoing measures, thereby underpinning Company-wide involvement in environment-related activities. Similarly, an energy management structure has been established to address energy use, which has a big impact on business, and each internal company has its own energy management officer who spearheads aggressive energy-saving activities matched to respective business scale.

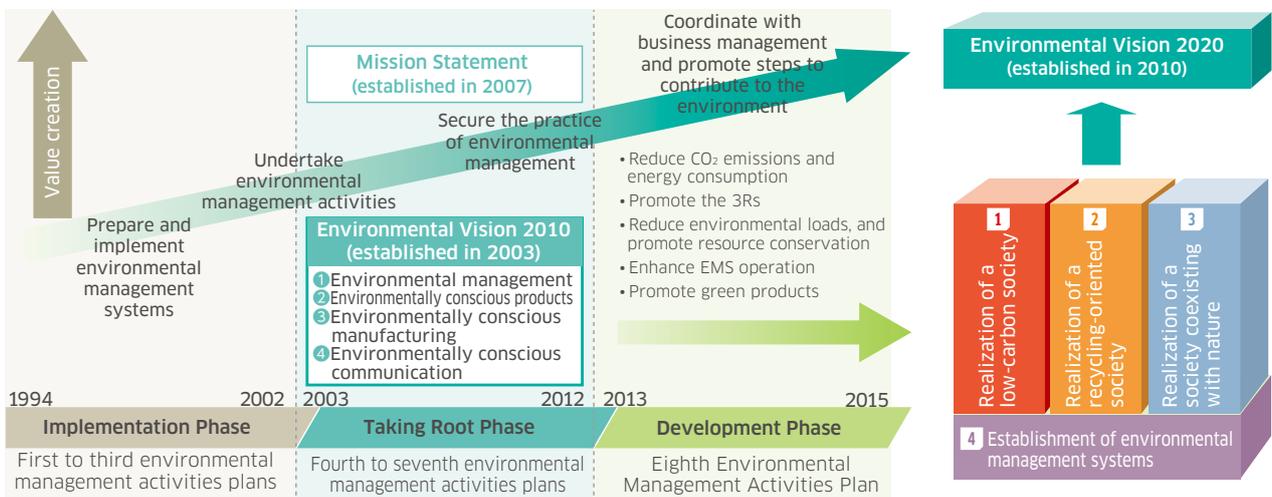
Environmental Management Organization



Energy Management Organization



Environmental Management Flow



Progress on Eighth Environmental Management Activities Plan and Environmental Vision 2020

The Kawasaki Group identifies initiatives in environmental management that hold high significance to itself and its stakeholders, such as measures of interest to institutional investors to mitigate global warming and updates on progress toward achieving Environmental Vision 2020. These issues are considered important aspects—materiality—in the Eighth Environmental Management Activities Plan (referred to below as the Eighth Plan), which covers the period from fiscal 2014 to fiscal 2016. We set a target for each issue of materiality and work steadily toward reaching those marks. In fiscal 2015, with heightened concern worldwide over water resources and a stronger inclination among customers to opt for environmentally conscious products, we expanded our scope of materiality to include conservation of water resources and expansion of the program Kawasaki Green Products Promotion Activity, and we are rolling out associated activities.

In fiscal 2015, we were on track with our results, achieving stated targets. Fiscal 2016 will be the last year of the Eighth Plan, and with the active support of all employees, we will tackle measures to curb energy use and cut costs, reduce environmental risk, and enhance our environmental brand, as we travel toward our must-reach targets.

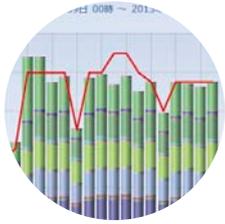
Environmental Management Activities Plan for Fiscal 2016

Coordination with Business Management and Promotion of Environmental Contribution

Key strategy	Targets
CO₂ and energy reduction Realization of a low-carbon society	Promote energy-saving action plans Establish a system to cut annual energy costs and CO ₂ emissions by at least 5%
	Reduce CO₂ emissions through the contribution from products Proactively disclose product-based contributions to the public
	Clarify the effect of investment in energy-saving facilities Push the internal rate of return above 8% on investments to achieve energy savings
Promotion of the 3Rs Realization of a recycling-oriented society	Promote waste reduce/reuse/recycle efforts Maintain zero emission status and reduce total waste emissions per unit of sales. Boost recycling rate above previous year's level
	Promote PCB processing Process low-concentration PCB waste appropriately through low-cost methods
Reduction of environmental load/ promotion of resource conservation Realization of a society coexisting with nature	Reduce chemical substances Major VOCs* per unit of sales to be at or below the average of results achieved in the Seventh Plan Seek to reduce heavy metals to zero, in principle, by fiscal 2021
	Continue with forest conservation activity Carry out forest conservation activity more than twice a year
	Conserving Water Reduce consumption per unit of sales to the level below the amount in fiscal 2014
Enhancement of the Kawasaki Group environmental management system Establishment of environmental management systems	Reinforce the environmental management ability of Kawasaki and consolidated subsidiaries in Japan Set reduction targets, and provide appropriate feedback
	Reinforce the environmental management ability of overseas consolidated subsidiaries Identify issues through more accurate understanding of environmental data and support methods to deal with such issues
	Human resources training Compile lists of human resources, pinpoint issues and take appropriate measures
Enhance profile of environmental brand	Leverage Kawasaki Green Products Promotion Activity program Introduce to the public products that have passed conformity assessment
	Enhance image through external evaluations and rankings Work to raise Kawasaki's environmental ratings

*Main VOCs: For the Kawasaki Group, the major VOCs are toluene, xylene and ethyl benzene. VOCs: Volatile Organic Compounds

Target Profile of the Kawasaki Group in 2020



- **Energy consumption and CO₂ emissions**
Major reductions achieved
- **Contribution from products**
Major reductions achieved in CO₂ emissions during utilization



- **3Rs**
Major reductions achieved per unit of sales
Recycling rate more than 97%
Zero emissions maintained
- **PCB treatment**
All treatment completed



- **Major VOCs**
Major reductions achieved per unit of sales and in total amount
- **Heavy metals**
Major reduction in amount utilized
- **Forest conservation activity**
Forest conservation activity continued



- **Establishment of EMS**
Establishment completed across the Kawasaki Group as a whole



Group Mission

“Kawasaki, working as one for the good of the planet”

Environmental Vision 2020

Realization of a low-carbon society

Contribute to the prevention of global warming through our products and manufacturing that use energy without waste

- ① Reduce 2020 greenhouse gas emissions in line with national targets.
- ② Offer customers energy-efficient products and services and reduce emissions of greenhouse gases on a planetary scale.
- ③ Promote energy conservation in production and logistics processes and reduce emissions of greenhouse gases.

Realization of a recycling-oriented society

Engage in manufacturing that uses resources without waste to recycle and fully utilize limited resources

- ① Practice design that uses resources effectively and work to make products lighter, more durable and more recyclable.
- ② Practice the 3Rs (reduce, reuse and recycle of waste) in production activities and achieve zero emissions at all plants.
- ③ Completely and appropriately treat all PCB waste and PCB-containing devices.

Realization of a society coexisting with nature

Contribute to reduction of the environmental impact and conservation of the ecosystem through manufacturing that is in harmony with the global environment

- ① Offer customers products and services that prevent air and water pollution, and advance environment improvements and ecosystem protection.
- ② Reduce the use of chemical substances in products and production activities.
- ③ Cooperate in regional forest conservation and other activities to protect the environment of ecosystems.

Establishment of environmental management systems

Build a foundation for environmental management that will achieve the Environmental Vision 2020

- ① Establish EMS at all consolidated subsidiaries in Japan and overseas to promote environmental management Group-wide.
- ② Comply with environmental laws and regulations and regularly follow up on compliance status.
- ③ Communicate environmental data within and beyond the Group and maintain two-way dialogue while protecting the environment.

Summary of Environmental Activities in Fiscal 2015

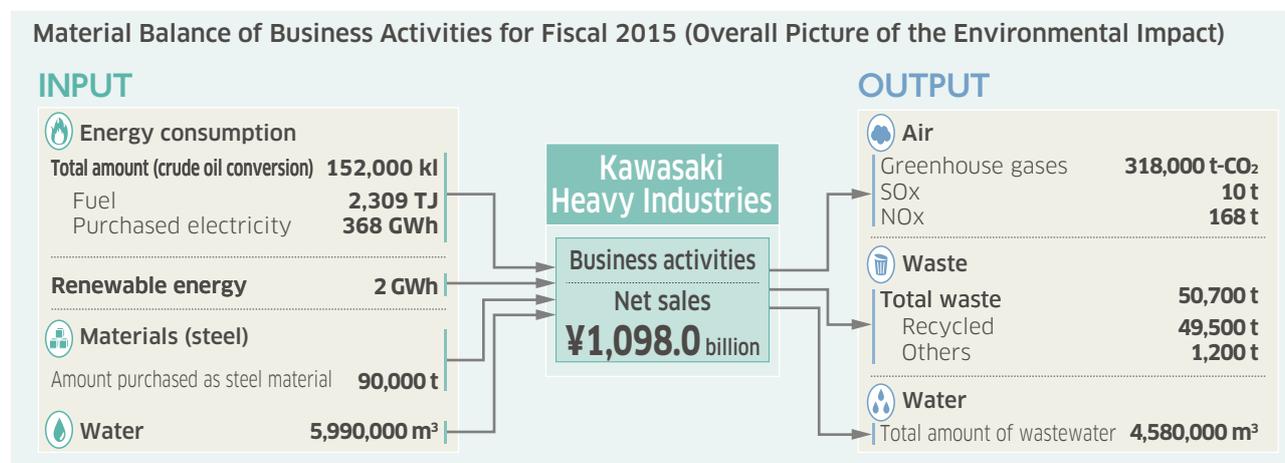
Fiscal 2015 Targets and Evaluation of Results

Eighth Environmental Management Activities Plan (FY2014-FY2016)	
Realization of a low-carbon society	<p>Specific measure Reducing CO₂ emissions and energy consumption</p> <p>1. Use energy visualization system</p> <p>Approach Reduce CO₂ emissions and energy consumption through improvement activities using an energy visualization system</p> <p>Target By fiscal 2016, reduce annual CO₂ emissions and energy consumption by at least 5%</p> <p>2. Cutting CO₂ emissions through product-based contributions</p> <p>Approach Calculate reduced CO₂ amount separately for energy-related products, transportation-related products, industrial machinery, and other products</p> <p>Target Achieve cumulative CO₂ emissions reduction equal to or more than the initial plan values for each business segment through product-based contributions</p>
	<p>Specific measure Promoting 3Rs (reduce, reuse, recycle)</p> <p>1. Promoting reduced waste generation, greater reuse and more recycling</p> <p>Approach Steadily implement measures to reduce total amount of waste generated. Promote high-level treatment and shift away from thermal recycling to material recycling and reuse</p> <p>Target Reduce total amount of waste per unit of sales, and maintain zero emission status at all business sites</p> <p>2. Promoting PCB treatment</p> <p>Approach Draft appropriate treatment plans and follow through with stated measures</p> <p>Target Sustain commitment to treatment of high-concentration PCB waste in cooperation with JESCO*. Apply optimum method to treat low-concentration PBC waste *Japan Environmental Storage & Safety Corporation</p>
Realization of society coexisting with nature	<p>Specific measure Reduction of substances harmful to the environment</p> <p>1. Reducing chemical substances</p> <p>Approach Switch to either alternative materials that do not contain hazardous substances or materials with low-content concentrations. Reduce emissions into the atmosphere and prevent movement beyond the borders of business sites through such efforts as collection and treatment of chemical substances</p> <p>Target Set major VOC reduction target below the average achieved through the Seventh Plan per unit of sales. Seek to reduce heavy metals to zero, in principle, by fiscal 2021</p> <p>Specific measure Promoting resource conservation</p> <p>1. Forest conservation activities</p> <p>Approach Continue to pursue forest conservation activities</p> <p>Target Conduct forest conservation activities at least twice a year</p> <p>2. Conserving Water</p> <p>Approach Promote water conservation programs</p> <p>Target Reduce water consumption and amount of wastewater</p>
	<p>Specific measure Enriching scope of environmental management systems in the Kawasaki Group</p> <p>1. Reinforcing environmental management ability of Kawasaki and subsidiaries in Japan</p> <p>Approach Communicate environmental data to stakeholders</p> <p>Target Set reasonable reduction targets and provide appropriate feedback</p> <p>2. Strengthening overseas subsidiaries' environmental management capabilities</p> <p>Approach Pinpoint environmental data and evaluate environmental performance (impact on environment and effectiveness of measures to limit such impact)</p> <p>Target Identify legal requirements and other criteria, and support efforts to mitigate environmental risk</p>
Establishment of environmental management systems	<p>Specific measure Kawasaki Green Product Promotion Activity</p> <p>1. Establishing compliancy evaluation system to assess environmental performance of Kawasaki-brand Green Products</p> <p>Approach Establish system for self-declared environmental claims regarding products</p> <p>Target Establish system conforming to ISO 14021</p>

Fiscal 2015 Targets	Fiscal 2015 Results	Page Number:
<p>CO₂ and energy reduction</p> <p>1. Use the energy visualization system By fiscal 2016, have equipment and system in place to reduce annual CO₂ emissions and energy consumption by at least 5%</p> <p>2. Reduce CO₂ emissions through product-based contributions Achieve cumulative values equal to or more than the initial plan values for each business segment and disclose the reduction of CO₂ emissions to the public</p>	<p>CO₂ and energy reduction</p> <p>1. Use the energy visualization system Continuing on from fiscal 2014, still introducing system facilities at all business sites. Rolled out improvement activities, with focus on study groups, courses and sharing of data on examples of improvement, and cut annual energy consumption by 2%</p> <p>2. Reduce CO₂ emissions through product-based contributions Although falling below the initial target, a decrease of 510,000t-CO₂ exceeded level of emissions from business activities. Reduction results disclosed to public, primarily through website and Kawasaki Report</p>	<p>▶ P.11</p>
<p>Promotion of the 3Rs</p> <p>1. Promoting reduction in waste generation, greater reuse and more recycling Reduce total waste emissions per unit of sales, and maintain zero emissions Boost recycling rate above previous years' level</p> <p>2. Promoting PCB treatment Look into and apply better treatment methods for low-concentration PCB waste</p>	<p>Promotion of the 3Rs</p> <p>1. Promoting reduction in waste generation, greater reuse and more recycling Total waste on a unit basis decreased 6% over the previous fiscal year, and the final disposal ratio was below 1%, maintaining zero emission status. Recycling rate held steady year on year, at 98%</p> <p>2. Promoting PCB treatment With best treatment method, 295 transformers and other units with low-concentration PCB content were processed</p>	<p>▶ P.15</p>
<p>Reduction of environmental load</p> <p>1. Reduce chemical substances Major VOCs per unit of sales to be at or below the average of results achieved in the Seventh Plan Seek to reduce heavy metals to zero, in principle, by fiscal 2021</p>	<p>Reduction of environmental load</p> <p>1. Reduce chemical substances Major VOCs decreased 23% on a unit basis, but dichloromethane emissions were up 13% and the amount of heavy metals handled jumped 47%.</p>	
<p>Promotion of resource conservation</p> <p>1. Continue with forest conservation activity Carry out forest conservation activity more than twice a year</p> <p>2. Conserving Water Reduce water consumption and amount of wastewater</p>	<p>Promotion of resource conservation</p> <p>1. Continue with forest conservation activity Activities were undertaken a total of five times in Hyogo Prefecture, Miyagi Prefecture, and Kochi Prefecture.</p> <p>2. Conserving Water The amount of water used was down 8% from the previous fiscal year on a unit basis, while the amount of wastewater increased 19%.</p>	<p>▶ P.16</p>
<p>Enhancement of the Kawasaki Group environmental management system</p> <p>1. Reinforce the environmental management ability of subsidiaries in Japan Set reduction targets, and provide appropriate feedback</p> <p>2. Reinforce the environmental management ability of overseas subsidiaries Promote information-sharing, identify issues at overseas locations, and support solutions</p>	<p>Enhancement of the Kawasaki Group environmental management system</p> <p>1. Reinforce the environmental management ability of Kawasaki and subsidiaries in Japan Continued to discuss targets for fiscal 2016.</p> <p>2. Reinforce the environmental management ability of overseas subsidiaries Created new, standardized method for collecting information from overseas sites and began applying data laterally and identifying issues requiring action.</p>	<p>▶ P.18</p>
<p>Kawasaki Green Product Promotion Activity</p> <p>1. Implementing compliancy evaluation Thoroughly review compliancy of products for environmental friendliness and establish a system for registering such products</p> <p>2. Communicating information within and beyond the Company Communicate environmental aspects of products in compliance with ISO 14021</p>	<p>Kawasaki Green Product Promotion Activity</p> <p>1. Implementing compliancy evaluation Registered 11 products as Kawasaki-brand Green Products following conformity assessment.</p> <p>2. Communicating information within and beyond the Company Disclosed information through such channels as Kawasaki Report 2014, various newspapers and magazines, corporate website and internal publications</p>	<p>▶ P.21</p>

Material Balance of Business Activities for Fiscal 2015 (Overall Picture of the Environmental Impact)

Kawasaki has drawn up a summary of the impact of our business activities on the environment during fiscal 2014. We undertake activities to reduce the amounts of raw materials, energy and water used in the manufacturing of our products, and we strive to curb the emission of substances that adversely affect the environment.



Environmental Accounting Calculations for Fiscal 2015

In compiling the statistics, reference was made to the Japanese Ministry of the Environment's Environmental Accounting Guidelines (2005 edition).

(Millions of yen)

Item		Environmental investments	Environmental costs	Economic effects	
Business area costs	Global warming prevention (Save energy, reduce greenhouse gas emissions, stop ozone layer destruction, etc.)	844	3,239	293	
	Efficient use of raw materials, water, and other resources	11	142	35	
	Resource-recycling activities	Resource-recycling activities	33	579	581
		Waste disposal costs	0	316	5
	Environmental risk control	265	700	0	
	Subtotal	1,154	4,976	912	
	Year-on-year comparisons	78%	99%	119%	
Upstream/downstream costs		16	2,870	0	
Management activity costs		13	431	0	
R&D costs		455	6,741	0	
Social activity costs		11	207	0	
Environmental remediation costs		0	66	0	
Total		1,650	15,292	912	
Year-on-year comparisons		99%	87%	119%	

Realization of a Low-Carbon Society

Fiscal 2015 Targets and Results

Targets

① Use the energy visualization system

By fiscal 2016, have equipment and system in place to reduce annual CO₂ emissions and energy consumption by at least 5%

② Reduce CO₂ emissions through the contribution from products

Achieve cumulative values equal to or more than the initial plan values for each business segment and disclose the reduction of CO₂ emissions to the public

Results

Continuing on from fiscal 2014, still introducing system facilities at all business sites. Rolled out improvement activities, with focus on study groups, courses and sharing of data on examples of improvement, and cut annual energy consumption by 2%

Although falling below the initial target, a decrease of 510,000t-CO₂ exceeded level of emissions from business activities. Reduction results disclosed to public, primarily through website and Kawasaki Report

Reduction in CO₂ Emissions from Production Activities

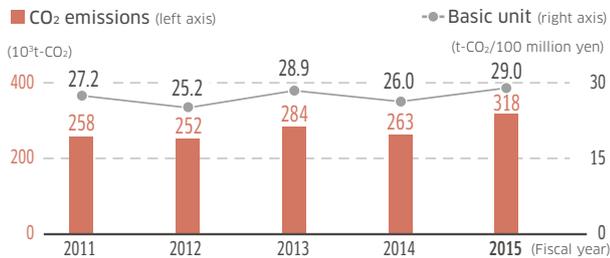
Kawasaki seeks to reduce CO₂ emissions generated through production activities by 5% by fiscal 2016 and has implemented steps to curb energy consumption.

In fiscal 2015, we achieved a CO₂ reduction effect of 6,000 tons—2% equivalent—mainly through energy-saving measures under the energy visualization system. But the emissions factor on electricity purchased from outside sources increased 16%*¹ over fiscal 2014, and overall emissions climbed 20%*² year on year, to 318,000 tons.

*¹ Year-on-year comparison of the CO₂ emissions and purchased electricity consumption ratio is calculated using emissions factors for each business site in each fiscal year

*² The CO₂ emissions value for fiscal 2014 includes a credit of 30,000 tons. If compared before the credit adjustment, the year-on-year increase is 8%, which is roughly equal to the increase in net sales in fiscal 2015.

CO₂ Emissions and Basic Unit



Notes: 1. Basic unit is a measurement obtained by dividing CO₂ emissions by net sales.

2. The CO₂ emissions factor is based on values published by Japan's Ministry of the Environment for each power provider in each fiscal year.

CO₂ Reduction Through Product-based Contributions

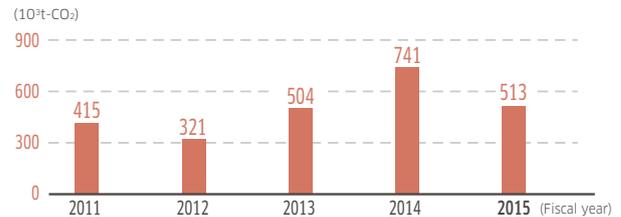
Kawasaki calculates CO₂ reduction of products in use in three categories—energy-related products, transportation-related products, and industrial equipment and products in other segments—to determine the CO₂ reduction effect through product-based contributions.

In fiscal 2015, the reduction—that is, contribution—reached 513,000 tons, or 30% year on year, reflecting a drop in the number of power generation systems (energy-related products) delivered.

Category	Reduction Effect	Main Products	Reason for Reduction
Energy-related products	202,000t/year	Gas turbine cogeneration system, gas engine power generation system	High-efficiency power generation, waste heat utilization
Transportation-related products	267,000t/year	Ships (improved propulsion performance) Aircraft (lighter weight of engines)	Better fuel economy
Industrial equipment, other	44,000t/year	Waste power generation system, hydraulic equipment, robots	Waste heat utilization, greater energy savings

CO₂ Emissions Reduction* Through Product-based Contributions

■ CO₂ Emissions Reduction



Notes: 1. Kawasaki used CO₂ emissions factors provided in the list of calculation methods and emissions factors published by Japan's Ministry of the Environment.

2. The CO₂ reduction effect achieved through higher efficiency of products is based on a comparison using standard, existing products.

3. Application of waste heat and energy derived from waste materials is counted toward the CO₂ reduction effect.

Use of Energy Visualization System

In fiscal 2015, we extended the scope of the energy visualization system, and we expect to have all areas at all Type 1 designated energy management factories under visualization during fiscal 2016. We set a goal to reduce annual CO₂ emissions and energy consumption by at least 5% by the end of fiscal 2016 using this system. In fiscal 2015, we achieved a 2% reduction in energy consumption, with a view to continuing our rollout of the system to all planned locations.

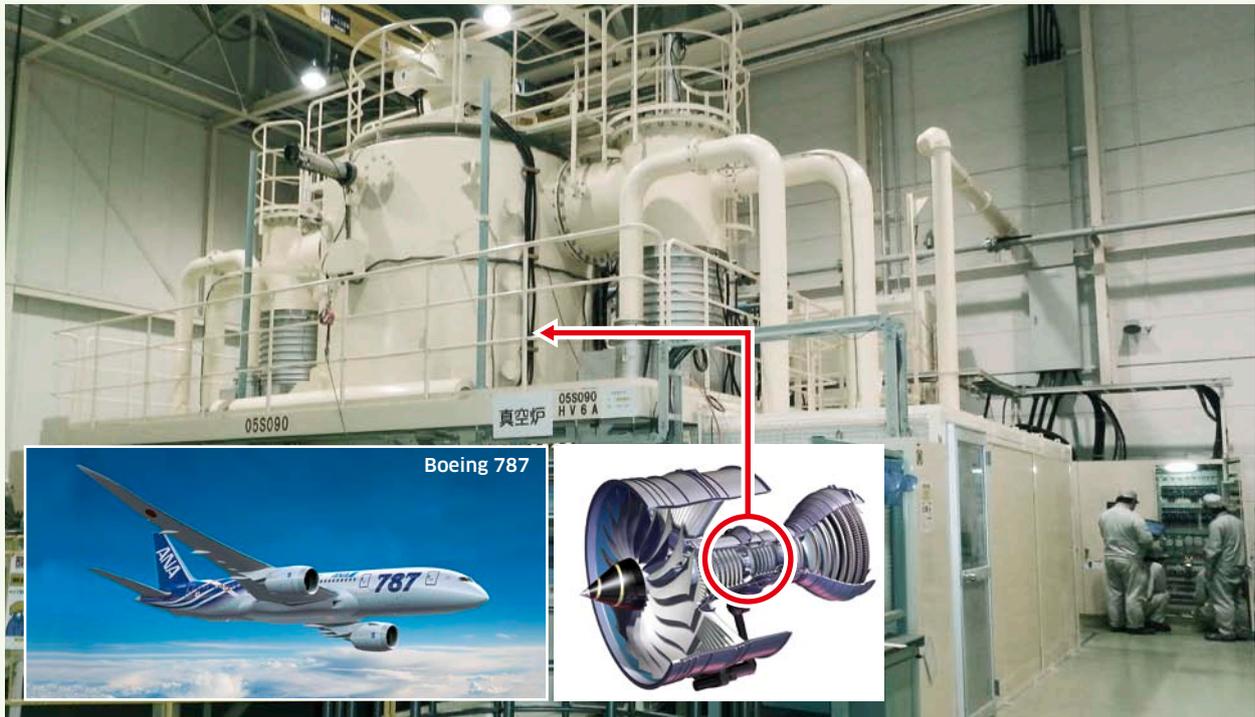
Going forward, we will be pursuing improvement activities involving all employees to accelerate energy-saving potential in several thousand pieces of production equipment.

To encourage all employees to support this system, we organize in-house information exchange opportunities on the topic of energy savings and set up study groups to highlight examples of the system in action. We strive to enhance energy savings and also, by promoting greater sophistication in the system's energy analysis function, enable individuals who are not necessarily experts in energy management to detect energy waste or discrepancies.

FOCUS

Using the energy visualization system, employees are able to implement energy-saving improvements on their own.

Optimizing power application method for heat treatment furnace used in production of aircraft engines (Seishin Works)

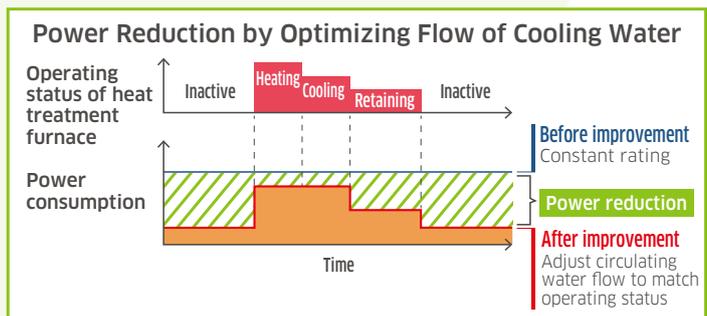
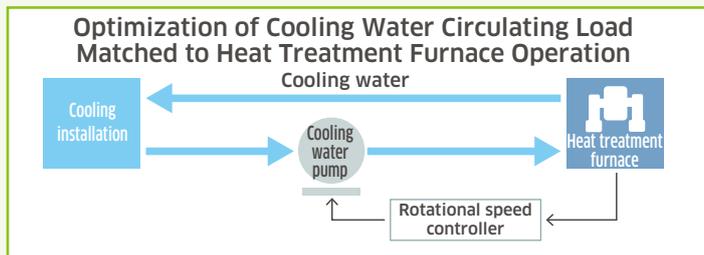


Power consumption

Down about **70%**



Experts in heat treatment looked into the process and optimized the circulating load of the cooling water. Power consumption decreased by 70%.



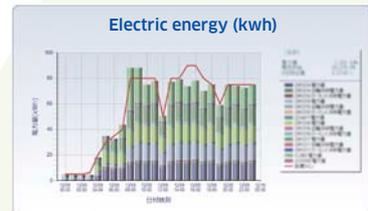
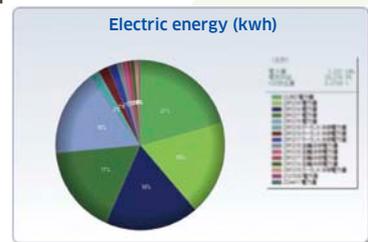
Promoting energy visualization system and energy-saving improvement know-how laterally across the organization

The production of products uses energy through various processes, from material handling to waste disposal.

To reduce energy consumption on the production stage, Kawasaki introduced an energy visualization system, dubbed K-SMILE, in all operating divisions in 2013.

When employees can see the flow of energy and water, they are able to draw on their own manufacturing knowledge to prevent wasted energy and incongruity. This will lead to a 5% reduction in energy costs.

K-SMILE is always evolving through feedback from users.



Proprietary energy visualization system-K-SMILE

Promote self-directed energy-saving activities

Examples of energy-saving improvements in-house and elsewhere are compiled into a database. We are working to make the database available Company-wide to promote knowledge sharing.

Energy Cost Reduction Goal

5% down

Database for examples of energy-saving improvements



Study sessions on energy-saving methods

People in all operating divisions who promote energy-saving activities gather at facilities where energy-saving measures have been successful for study sessions. By promoting energy-saving technology, we accelerate associated activities throughout the organization.



Lecture on energy-saving methods

Lectures on approaches to successful energy-saving, presented by invited, an external consultant, enhance awareness and responsiveness throughout the Company.

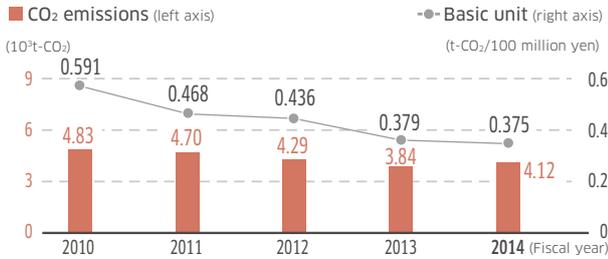


Reduction of Greenhouse Gas Emissions in Logistics Processes

Kawasaki promotes energy-saving activities and data tracking to curb CO₂ emissions from logistics processes.

In fiscal 2015, we saw a 40% increase in freight carried by ship, mainly due to greater marine transport of semi-finished products between our factories. On land, we embraced various measures, including steps to improve load efficiency. But overall, emissions rose 8%, to 4,000t-CO₂.

CO₂ Emissions from Logistics Processes and Basic Unit

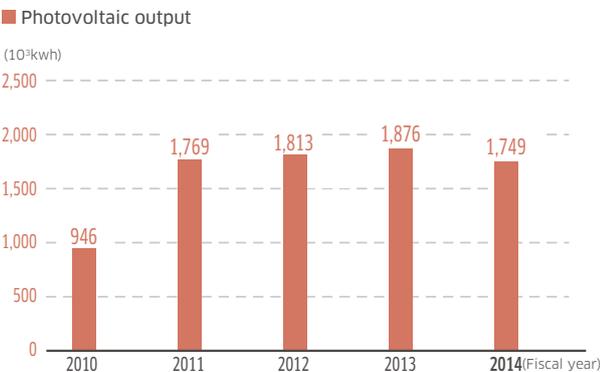


Notes: 1. Basic unit is a measurement obtained by dividing CO₂ emissions by net sales.
2. CO₂ emissions in logistics processes are calculated from our position as a specified consignor under the Energy Saving Law.

Utilizing Renewable Energy

Kawasaki has installed solar power generating facilities at seven domestic factories, for total generating output of about 1,500kW. In addition, Kawasaki Trading Co., Ltd., a Kawasaki Group company, is involved in sales of about 2,700kW under Japan's Feed-in Tariff Scheme for Renewable Energy.

Electric Power Output from Photovoltaic Systems



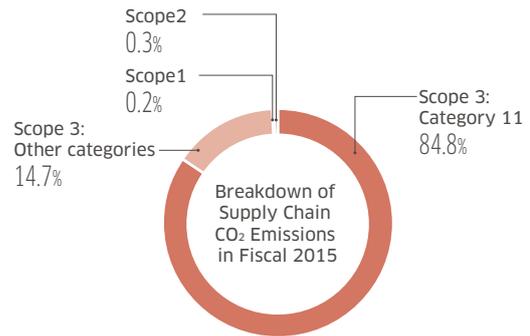
Estimating CO₂ Emissions in Supply Chain

The scope that Kawasaki is required to cover in tracking CO₂ emissions is expanding, characterized by an accelerating trend toward the inclusion of not only the Company's own operations but those of its supply chain as well. The standards for calculating emissions along our supply chain include Corporate Value Chain (Scope 3) Accounting and Reporting Standard, established by the Greenhouse Gas Protocol. In Japan, the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain—a Japanese version of Scope 3—were prepared by the Research/Study Committee on Standards for Accounting and Reporting Organization's GHG emissions throughout the

Supply Chain, established jointly by the Ministry of Economy, Trade and Industry and the Ministry of the Environment, to look into methods for calculating greenhouse gas emissions along corporate supply chains. Using these basic guidelines, Kawasaki calculated CO₂ emissions along its supply chain, and presents the results in the pie graph below.

According to this data, the GHG effect accompanying the use of Kawasaki-sold products over the whole supply chain is extremely high. We have been making progress in reducing CO₂ emissions through product-based contributions, but going forward, we will take an even more proactive approach.

Breakdown of Supply Chain CO₂ Emissions in Fiscal 2015



Scope 1: Direct GHG emissions from reporting company's own corporate activities, such as direct emissions from fuel consumption or industrial processes at company sites
Scope 2: Indirect GHG emissions from use of energy from reporting company's corporate activities, such as indirect emissions from the use of purchased electricity and heat
Scope 3: All other indirect GHG emissions not included in Scope 1 or Scope 2 systematically broken down into 15 categories
• Category 11: GHG emissions from use of sold products
• Other categories: Total of categories 1, 2, 3, 4, 5, 6, 7, 9 and 15
• Categories not included in the above: Categories 8, 10, 12, 13 and 14 are not part of the business activities of Kawasaki or are accounted for under other categories, or else the GHG emissions are difficult to calculate at the current time and are excluded

The Next Step

To achieve the CO₂ emissions reduction target set out in Environment Vision 2020, we will put more effort into improvement activities using the energy visualization system and accelerate approaches to save energy and natural resources. In addition, we will strive to develop products with the capacity to curb CO₂ emissions and encourage the widespread use of such products by conducting product assessments and by leveraging the program Kawasaki Green Products Promotion Activity.

Realization of Recycling-Oriented Society

Fiscal 2015 Targets and Results

Targets

① Promoting reduction in waste generation, greater reuse and more recycling

Reduce total waste emissions per unit of sales, and maintain zero emissions
Boost recycling rate above previous years' level

② Promoting PCB treatment

Look into and apply better treatment methods for low-concentration PCB waste

Results

Total waste on a unit basis decreased 6% over the previous fiscal year, and the final disposal ratio was below 1%, maintaining zero emission status.

Recycling rate held steady year on year, at 98%

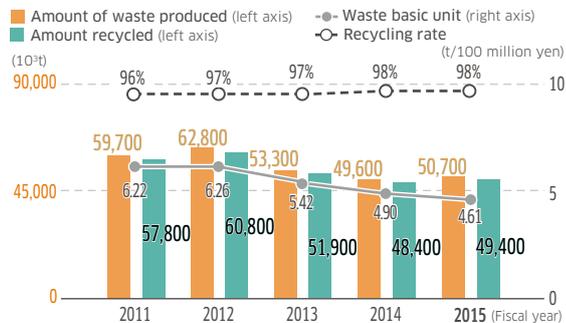
With best treatment method, 295 transformers and other units with low-concentration PCB content were processed

Promoting reduction in waste generation, greater reuse and more recycling

We use wisely and repurpose the limited resources that are needed to make our products and facilitate the manufacturing process so that these materials are consumed without waste. We emphasize designs that use resources effectively, and we seek to create products that are more lightweight, durable and recyclable. In addition, we advocate the 3Rs—reduce, reuse and recycle—in our manufacturing activities and seek zero emission status at all factories.

In fiscal 2015, total waste reached about 50,700 tons, rising slightly due to an increase in operating activities, but the recycling ratio remained on a par with fiscal 2014, at 98%, and in terms of unit of sales—t/¥100 million—we achieved our target by a good distance, hitting 4.61, compared with the anticipated 6.04.

Waste Produced, Recycling Rate and Basic Unit



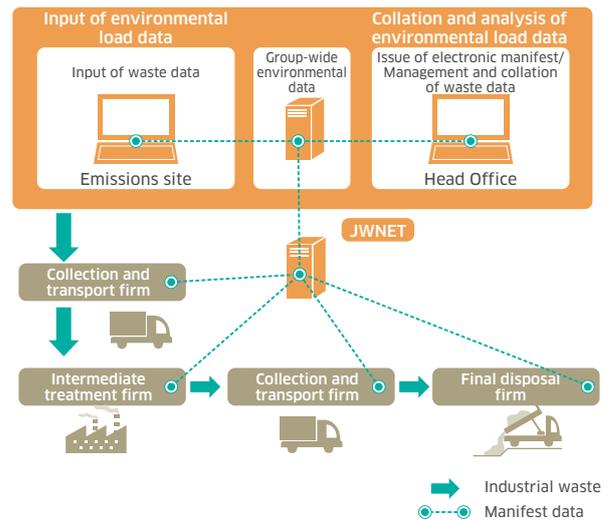
Promoting PCB treatment

For high-concentration PCB waste, we are executing appropriate treatment of high-concentration PCB waste in accordance with the treatment plan laid out by the Japan Environmental Storage & Safety Corporation (JESCO). For low-concentration PCB waste, we performed an on-site check of the Ministry of the Environment-certified provider's operations and verified for ourselves that the provider duly undertakes treatment in an appropriate manner; and having approved of the provider's capabilities, we commenced outsourcing to treat and dispose of low-concentration PCB waste.

Using an Electronic Manifest System

Kawasaki uses an in-house system (ECOKEEP), linked to the electronic manifest system operated by the Japan Industrial Waste Information Center, to ensure legal compliance and make the treatment of waste from administrative activities more efficient. In fiscal 2015, all factories were brought under ECOKEEP, and about 6,000 administrative procedures, on an annual basis, were processed electronically.

Environmental Data Management System (ECOKEEP)



The Next Step

Going forward, we will absolutely achieve targets on a unit of sale basis, as we strive to raise the recycling ratio still higher. In addition, we aim to complete our disposal of all PCB waste—high-concentration as well as low-concentration—by the end of fiscal 2021, March 31, 2021.

Realization of a Society Coexisting with Nature

Fiscal 2015 Targets and Results

Targets

① Reduce chemical substances

Major VOCs per unit of sales to be at or below the average of results achieved in the Seventh Plan
Seek to reduce heavy metals to zero, in principle, by fiscal 2021

② Continue with forest conservation activity

Carry out forest conservation activity more than twice a year

③ Conserving Water

Reduce water consumption and amount of wastewater

Results

→ Major VOCs decreased 23% on a unit basis, but dichloromethane emissions were up 13% and the amount of heavy metals handled jumped 47%.

→ Activities were undertaken a total of five times in Hyogo Prefecture, Miyagi Prefecture, and Kochi Prefecture.

→ The amount of water used was down 8% from the previous fiscal year on a unit basis, while the amount of wastewater increased 19%.

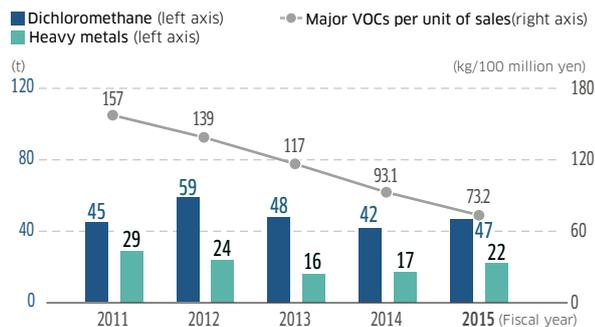
Chemical Substance Reduction

Kawasaki pursues measures to reduce consumption and emissions of chemical substances and to ensure appropriate management thereof. We have set targets for major VOCs (toluene, xylene and ethylbenzene), dichloromethane and hazardous heavy metals in each business segment, and apply approaches to curb consumption and emissions and to ensure appropriate management of these substances.

In fiscal 2015, the amount of dichloromethane and hexavalent chromium compounds handled rose, owing to an increase in production volume. But major VOCs and lead compounds, which are often found in paints, were down year on year. Yearly changes are shown in the graphs below for substances with reduction targets and managed substances designated under the PRTR Law.*

*PRTR law: Pollutant Release and Transfer Register law (Order for Enforcement of the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof)

Handling Volume and Emissions of Managed Chemical Substances



Notes: 1. Major VOCs per unit of sales is a measurement obtained by dividing VOC emissions by net sales.
2. Heavy metals represent the combined amount of lead compounds and hexavalent chromium compounds. Reduction activities are undertaken separately for each substance.

Release and Transfer of Chemical Substances Designated under the PRTR Law



Conserving Water

Kawasaki strives to reduce water consumption and sets reduction targets on a per unit of sales basis.

In fiscal 2015, we worked toward a decrease in water consumption, including appropriate management of cooling water, but because of production increases at factories and expansion of testing facilities, water usage remained at the level reached in the previous fiscal year. Nevertheless, we achieved our target, as water consumption dropped 8% on a per unit of sales basis from fiscal 2014.

Water Consumption and Basic Unit



Forest conservation activity

Seeking to realize a society that coexists with nature, Kawasaki Group has participated in corporate forest restoration projects promoted by Hyogo Prefecture since December 2008.

Activities kicked off with forest conservation activities and nature watching and observation events in a community forest dubbed Kawasaki Heavy Industries Saidani Nagomi-no-Mori, in the town of Taka. In 2014, we shifted activities to Kawasaki Heavy Industries Yokamura Park Nagomi-no-Mori, still in the Taka area, as we continued our efforts to keep the local forests healthy. These forest conservation activities have involved the participation of some 1,300 employees and their families including newly hired employees since 2008.



Group photo from activity in autumn 2014

Biodiversity-Friendly Society

A short-term target in Japan's national biodiversity strategy, which was revised in 2010, is to analyze the state of biodiversity to get a clearer picture of conditions and, based on this knowledge, to promote activities that protect biodiversity. We will support efforts to achieve this objective by implementing the activities listed below at all business sites with biodiversity protection in mind.

We also undertake activities such as greening programs on corporate premises that take into account location or other characteristics specific to each operating site.

Efforts to Reduce the Environmental Load from Business Activities

- 1 Promote measures to cut greenhouse gas emissions
- 2 Reduce the amount of industrial waste for final disposal
- 3 Decrease the environmental load from wastewater and chemical substances

Non-Business Activity

- 1 Promote cleanup events around business sites
- 2 Implement greening programs and other activities based on analysis of and insight into biodiversity conditions on corporate premises and the surrounding area
- 3 Embrace collaborative opportunities to protect biodiversity with local groups, such as creating corporate forests

Responding to the ELV Directive*1, the RoHS Directive*2, and the REACH Regulation*3

Since 2000, laws and regulations related to chemical substances have been strengthened in the European Union (EU) by the establishment of such controls as the ELV Directive, the RoHS Directive, and the REACH Regulation. The ELV Directive focuses on automobiles, and while motorcycles are not subject to the content of this directive, the Motorcycle & Engine Company has embraced the voluntary actions espoused by the Japan Automobile Manufacturers Association (JAMA). The Precision Machinery Company also applies this directive to some of our products. The RoHS Directive covers electric and electronic products, and within the Kawasaki structure, the Precision Machinery Company, which includes the Robot Division, complies with the directive for some of its products.

The REACH Regulation went into effect in June 2007 and applies to all chemical substances manufactured in and imported by the EU. Enterprises that manufacture or import one ton or more of chemical substances a year are required to register the chemical substances. As Kawasaki products are mainly molded articles, only a limited number need to be registered. Registration and notification are, however, compulsory for all substances that are deliberately emitted and all substances that are carcinogenic or otherwise of high concern. In addition to registration and notification, regulations exist for the evaluation, authorization, restriction and communication of information regarding chemical substances, necessitating a system to identify information about the chemical substances in products throughout our entire supply chain.

Laws and regulations related to chemical substances have been strengthened not only in the EU but in many countries around the world. As requirements vary by country, for instance regarding substances and products covered, we believe that our response must be based on a firm understanding of the law.

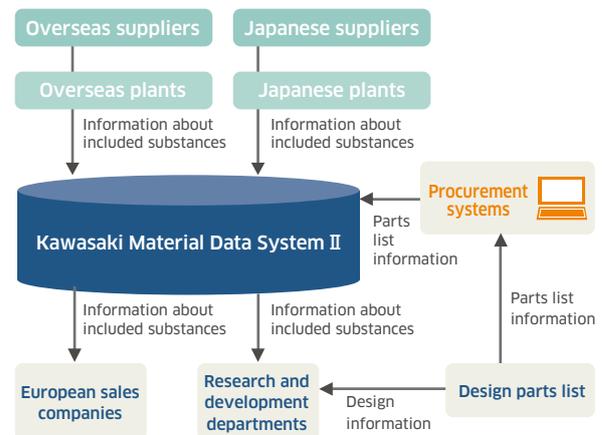
Kawasaki practices CSR procurement and responds to requests from customers to gather chemical substance information. In addition, the Motorcycle & Engine Company has created the Kawasaki Material Data System II*4 to collect data about chemical substances and respond to REACH and other applicable chemical substance regulations.



CSR Procurement Guidelines >

<http://global.kawasaki.com/en/corp/sustainability/procurement/guideline.html>

Response to REACH by the Motorcycle & Engine Company



*1 ELV Directive: End of Life Vehicles Directive

*2 RoHS Directive: Directive on Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

*3 REACH Regulation: Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals

*4 Kawasaki Material Data System II: Currently switching to IMDS (International Material Data System: A reporting system encompassing 26 finished automakers in Europe, the United States, Japan and South Korea which enables suppliers to identify the composition of materials in respective parts delivered to the automotive industry)

The Next Step

For chemical substances, we will embrace methods to consume them entirely and collect and treat them, and switch to alternative products and materials with less toxic content, as we work toward stated targets. For water, we will reduce consumption and emissions, through such efforts as pinpointing problem areas and repairing leaks. In addition, we will strive to protect biodiversity by providing environmentally conscious products and services and playing a constructive role in forest conservation activities.

Establishment of Environmental management System

Targets

- ① Reinforce the environmental management ability of subsidiaries in Japan**
 Set reduction targets, and provide appropriate feedback
- ② Reinforce the environmental management ability of overseas subsidiaries**
 Promote information-sharing, identify issues at overseas locations, and support solutions

Results

- Continued to discuss targets for fiscal 2016.
- Created new, standardized method for collecting information from overseas sites and began applying data laterally and identifying issues requiring action.

Using IT Systems

At Kawasaki, we see environmental management activities as a vital component of business activities, so we conduct quantitative assessment using IT systems and promote greater efficiency in operations.

We utilize an internal information management system—ECOKEEP—to monitor environmental management targets, manage environmental data and issue an electronic manifest for industrial waste. For activities to save energy, we draw on our energy visualization system—K-SMILE—designed to visualize energy consumption at the production stage. Going forward, we will entertain measures to connect subsidiaries at home and abroad to these IT systems.

Kawasaki Group EMS

All of Kawasaki's domestic production sites have acquired ISO 14001 status.

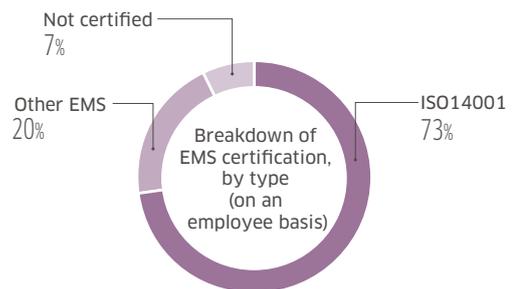
Of the Company's 39 domestic subsidiaries that are required to establish an EMS, all have either obtained ISO 14001 certification or simplified EMS certification from other standards organizations, such as the Kobe Environmental Management System from the Kobe Environmental Forum, or else established EMS through self-declaration. There are some subsidiaries where the scope of certification or the level of EMS certification has changed after establishing an EMS, reflecting conditions at the business site, such as corporate reorganization or a change in affiliation. The table shows the most recent information. These companies are also pushing ahead on the collection of environmental data through ECOKEEP and setting reduction targets matched to respective business levels.

Of our 25 overseas subsidiaries required to establish EMS, 24 have done so through acquisition of ISO 14001 or through self-declaration.

The one remaining company is preparing to obtain ISO 14001 certification. All the companies that have implemented an EMS are now refining methods to accurately and efficiently collect environmental data and further strengthen environmental management practices.

A breakdown of EMS certification, by type, on a Group-wide employee basis, is shown on the right. About 73% of all employees work at sites that have acquired ISO 14001 certification.

Breakdown of EMS Certification, by Type, within the Group (on an employee basis)



Note: Denominator is number of employees within the Group on a consolidated basis.

Current Situations for Acquiring ISO 14001 (JIS Q 14001) Certification for Kawasaki Production Bases

Internal companies		Date acquired	Registration
Ship & Offshore Structure Company	Kobe Works	Aug. 2002	DNV GL
	Sakaide Works	Aug. 2000	DNV GL
Rolling Stock Company		Feb. 2002	LRQA
Aerospace Company		Feb. 2002	BSK
Gas Turbine & Machinery Company	Gas Turbine Division	Mar. 2000	LRQA
	Machinery Division	Dec. 2000	NK
Plant & Infrastructure Company		Nov. 1999	JICQA
Motorcycle & Engine Company		Feb. 2000	DNV GL
Precision Machinery Company	Nishi-Kobe Works	Feb. 1998	DNV GL
	Robot Division	Mar. 2011	DNV GL

LRQA: Lloyd's Register Quality Assurance Limited., JICQA: JIC Quality Assurance Ltd., NK: Nippon Kaiji Kyokai (ClassNK), BSK: Bouei Kiban Seibi Kyokai (Defences Structure Improvement Foundation), DNV GL: DNV GL Group.

Domestic Subsidiaries

Oversight organization	Company	Establishment level*	Date of establishment
Head Office	Kawasaki Trading Co., Ltd.	1	Dec. 2004
	Kawaju Service Co., Ltd.	1	Feb. 2000
	Kawasaki Technology Co., Ltd.	3	Oct. 2011
	Kawasaki Life Corporation	2	Jul. 2006
	Kawasaki Hydromechanics Corporation	1	Jun. 2007
	K Career Partners Corp.	2	Mar. 2007
	Benic Solution Corporation	2	Feb. 2006
	KCM Corporation	1	May 2000
Ship & Offshore Structure Company	KCMJ Corporation	2	Mar. 2012
	Kawasaki Techno Wave Co., Ltd.	1	Aug. 2000
	Kawaju Support Co., Ltd.	2	Dec. 2005
	Kawaju Marine Engineering Co., Ltd.	3	Apr. 2013
Rolling Stock Company	KHI JPS Co., Ltd.	3	Mar. 2008
	Alna Yusoki-Yohin Co., Ltd.	1	Nov. 2008
	Kawasaki Rolling Stock Component Co., Ltd.	1	Aug. 2002
	Kawasaki Rolling Stock Technology Co., Ltd.	1	Aug. 2002
	Kansai Engineering Co., Ltd.	3	Aug. 2002
	Sapporo Kawasaki Rolling Stock Engineering Co., Ltd.	2	Jun. 2011
	Nichijo Manufacturing Co., Ltd.	2	Oct. 2005
Aerospace Company	Kawaju Gifu Engineering Co., Ltd.	1	Feb. 2002
	Kawaju Gifu Service Co., Ltd.	1	Feb. 2002
	KGM Co., Ltd.	1	Feb. 2002
	NIPPI Corporation	1	Dec. 2006
Gas Turbine & Machinery Company	Kawaju Akashi Engineering Co., Ltd.	1	Mar. 2000
	Kawasaki Thermal Engineering Co., Ltd.	1	Apr. 2002
	Kawasaki Machine Systems. Ltd.	1	Mar. 2000
	Kawasaki Prime Mover Engineering Co., Ltd.	1	Dec. 2002
	Kawasaki Naval Engine Service, Ltd.	1	Dec. 2002
Plant & Infrastructure Company	KEE Environmental Construction, Co., Ltd.	1	Dec. 2003
	EarthTechnica M&S Co., Ltd.	3	Apr. 2013
	Kawasaki Environmental Plant Engineering Co., Ltd.	1	Jun. 2002
	Kawaju Facilitch Co., Ltd.	2	Jul. 2013
	Kawasaki Engineering Co., Ltd.	3	Oct. 2009
Motorcycle & Engine Company	EarthTechnica Co., Ltd.	1	Sep. 2000
	Kawasaki Motors Corporation Japan	1	Feb. 2008
	K-Tec Corp.	1	Dec. 2014
	Technica Corp.	3	Mar. 2012
	AutoPolis	2	Dec. 2011
Union Precision Die Co., Ltd.	1	Jul. 2006	

Overseas Subsidiaries

Oversight organization	Company	Location	Establishment level*	Date of establishment
Head Office	KHI (Dalian) Computer Technology Co.,Ltd.	China (PRC)	3	May 2013
	KCMA Corporation	U.S.A	3	Mar. 2011
Rolling Stock Company	Kawasaki Rail Car, Inc.	U.S.A	1	In progress
Gas Turbine & Machinery Company	Kawasaki Gas Turbine Asia Sdn. Bhd.	Malaysia	3	Mar. 2013
	Kawasaki Gas Turbine Europe GmbH	Germany	3	Mar. 2013
	Wuhan Kawasaki Marine Machinery Co., Ltd.	China (PRC)	1	Jul. 2009
Plant & Infrastructure Company	KHI Design & Technical Service Inc.	Philippines	3	Nov. 2011
Motorcycle & Engine Company	Kawasaki Motors Corp., U.S.A	U.S.A	3	Mar. 2013
	Kawasaki Motors Pty. Ltd.	Australia	3	Mar. 2013
	PT. Kawasaki Motor Indonesia	Indonesia	3	Jan. 2012
	KHITKAN Co., Ltd	Thailand	1	Dec. 2011
	Kawasaki Componentes da Amazonia Ltda.	Brazil	3	Jun. 2013
	Kawasaki Motores do Brasil Ltda.	Brazil	3	Jun. 2013
	Kawasaki Motors Europe N. V.	Netherlands	3	Feb. 2014
	Kawasaki Motors (Phils.)Corporation	Philippines	3	Jan. 2012
	Kawasaki Motors Manufacturing Corp., U.S.A.	U.S.A	1	Apr. 2003
	Kawasaki Motors Enterprise (Thailand) Co., Ltd.	Thailand	1	Dec. 2011
Canadian Kawasaki Motors Inc.	Canada	3	Feb. 2013	
Precision Machinery Company	Kawasaki Precision Machinery (Suzhou) Ltd.	China (PRC)	1	Dec. 2007
	Kawasaki Precision Machinery (UK) Ltd.	UK	1	Nov. 2001
	Kawasaki Chunhui Precision Machinery (Zhejiang) Ltd.	China (PRC)	1	Nov. 2012
	Flutek, Ltd.	Korea	1	Nov. 2005
	Kawasaki Robotics (Tianjin) Co., Ltd.	China (PRC)	3	Nov. 2012
	Kawasaki Robotics GmbH	Germany	3	Nov. 2012
Kawasaki Robotics (U.S.A.), Inc.	U.S.A	1	Feb. 2006	

*Level 1 ISO 14001 registration
 Level 2 Simplified EMS certification
 Level 3 Self-declaration of EMS establishment

Compliance with Laws and Regulations

Within the Kawasaki Group, environmental management activities are undertaken in the Group's efforts to comply with environmental laws and regulations. In fiscal 2015 and extending back more than five years, no situation has occurred that would lead to administrative action or guidance. In addition, no environment-related complaints were received from neighborhood residents in fiscal 2015.

In regard to measures arising from a situation that runs counter to environmental management rules, Kawasaki has established an internal requirement in the event a situation leads to administrative action or guidance or a citizen's complaint whereby the head office is to be notified immediately upon occurrence of the event, in accordance with a prescribed format.

Risk Management

In addition to approaches based on Company-wide risk management structures, we hold liaison conferences at appropriate intervals for environmental management officers from within the Group, who work with the secretariat—the Environmental Affairs Department—to ensure that environmental laws and regulations are obeyed and that legal revisions are widely known and understood, and to enhance the abilities of managers with environmental responsibilities. These conferences emphasize compliance with environmental laws and regulations to preempt environmental accidents.

In fiscal 2015, following the revision of the Fluorocarbons Recovery and Destruction Law, we gathered managers, mainly those with responsibility for environment-related issues or facility management, together to present an overview of the revised law and discuss the role and obligations of a class-1 specified equipment administrator, clarify simplified inspection methods, identify units in possession, and explain ledger management, and thereby ensure a thorough awareness of the purpose and content of the revised law.

Promoting Environmental Communication

Raising Environmental Awareness

The Kawasaki Group runs publicity campaigns designed to raise the environmental awareness of each and every employee. We undertake these campaigns continually to promote environmentally conscious conduct not only in the workplace but also in the community and at home.



Articles featured in internal bulletins



President's message on environmental management

Environmental e-Learning

To maintain and improve environmental awareness among employees throughout the domestic Group, we offer environmental e-learning opportunities to new employees. This ongoing process is aimed at new employees at Kawasaki and domestic consolidated subsidiaries. In fiscal 2015, approximately 2,700 people participated in the environmental e-learning courses. The attendance rate was 97%.

Cultivating Qualified Managers

To enrich management activities emphasizing energy and the environment, we are striving to cultivate individuals with legal qualifications required under laws and regulations related to energy and the environment. In addition, as an internal qualification, we offer training for internal ISO 14001 auditors, through which 83 employees qualified as internal auditors in fiscal 2015.

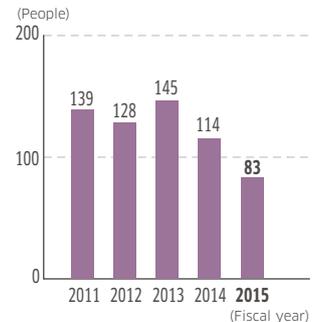
Number of Qualified Pollution Control Managers

Air	79
Water	75
Noise, vibration	41
Others	82
Total	277

Number of Qualified Energy Managers

Energy managers	67
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Number of Completed Training of Internal Environmental Auditors (ISO 14001)



External Information Disclosure

At Kawasaki, we vigorously pursue disclosure of environmental information, as indicated by our cooperation with many external evaluation organizations in their questionnaires, including the CDP climate change information request and the CDP water information request, published by the CDP, the Environmental Management Survey, conducted by Nikkei Research Inc., the Toyo Keizai CSR Survey, the Dow Jones Sustainability Index, managed cooperatively by S&P Dow Jones Indices and RobecoSAM (Sustainable Asset Management), and the Buna-no-Mori Environmental Survey 2014 (A rating) by Somo Japan Nipponkoa Risk Management Inc.

The Next Step

We will utilize environmental management systems, which ensure an accurate grasp of environmental impact data and adherence to legal and regulatory systems, to minimize environmental risk on a Group-wide basis. We will also analyze materiality based on the effect Group businesses have on the environment, and we will apply materiality tapped under Environmental Vision 2020 and of particular interest to stakeholders as key points in strategies for the next environmental management activities plan.

Environmental Contribution Through Products

Product Assessment

For newly developed and designed products, as well as for particularly important products, Kawasaki assesses products according to such criteria as resource and energy savings and recycling potential, with the goal of reducing the environmental impact of our products during their life cycles. Because specific evaluation techniques vary depending on the type of product, each business segment draws up product assessment rules appropriate to the characteristics of the respective product. The main evaluation items of product assessment are shown below.

- 1 Product weight reduction
- 2 Product energy saving
- 3 Longer product life
- 4 Product safety and environmental conservation effectiveness
- 5 Measures for product disposal and recycling
- 6 Environmental impacts when problems or other extraordinary circumstances occur
- 7 Provision of information for use and maintenance
- 8 Compliance with regulations

Kawasaki Green Product Promotion Activity

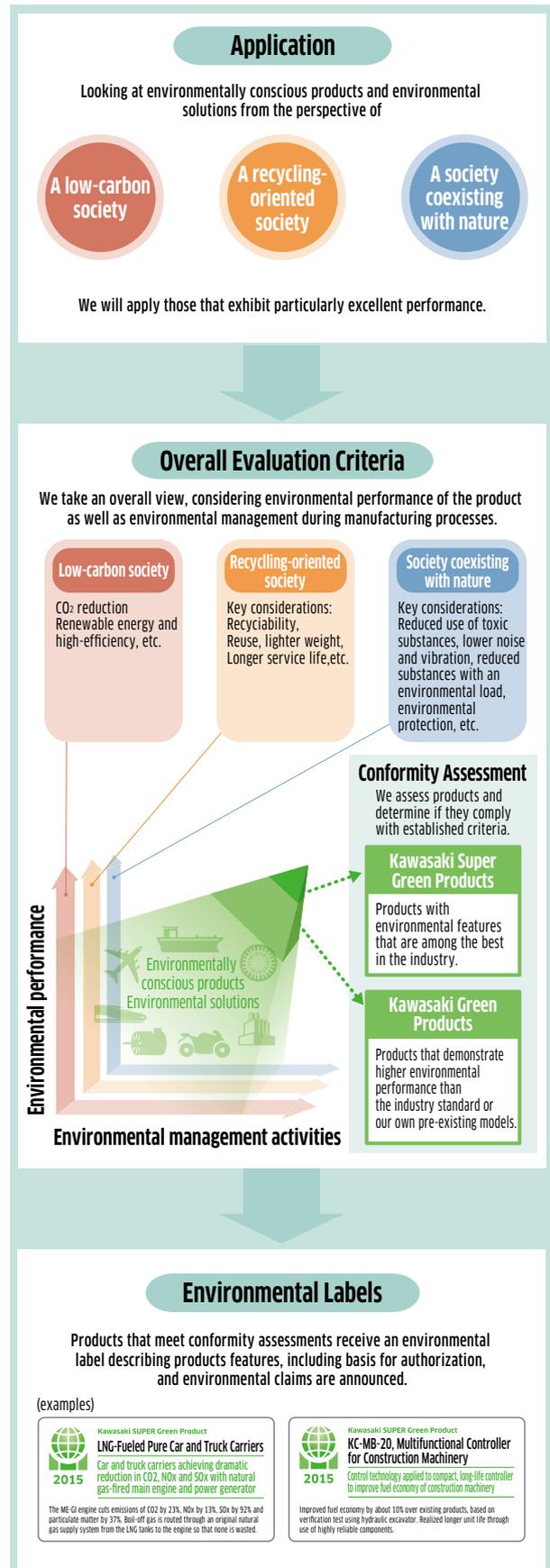
To realize our Group Mission: "Kawasaki, working as one for the good of the planet," we will draw on high-level, comprehensive technological capabilities over the Kawasaki Group's extensive range of business pursuits to create new value for coexisting with nature and building a brighter, more comfortable future for generations to come. Just recently, we launched Kawasaki-brand Green Products, a program in support of the Group Mission objective and through which we will boost the environmental performance of products and accelerate the reduction of environmental impact caused by associated manufacturing processes. The products selected for this program must meet self-established criteria and are categorized as either Kawasaki Green Products or Kawasaki Super Green Products. The products are then labeled compliant with ISO 14021, and the list is made public.



Kawasaki Green Product Promotion Activity Program logo

The program logo embodies Kawasaki's commitment to environmental sustainability through products and manufacturing. The three pillars in the logo represent our primary business areas—land, sea and air transport systems, energy and environmental engineering, and industrial equipment—and the innovative and advanced technological capabilities in these respective areas form a firm foundation for these pillars, which together support the global environment.

Conformity Assessment Process



Kawasaki-brand Green Products Lessen Environmental Impact



Kawasaki's approach to environmental issues, such as global warming and energy use and availability, is to lessen environmental impact through its products, and toward this end, the Company has supported a program, Kawasaki Green Product Promotion Activity, to address these issues, since 2014. Registered products receive an ISO 14021-compliant environmental label certifying that they are environment-friendly.

The Select "Second Set" of Kawasaki-brand Green Products

Kawasaki selected 11 products in 2015 to be in the second set of Kawasaki-brand Green Products. Kawasaki-brand Green Products are assessed for their contribution to the realization of a low-carbon society, a recycling-oriented society, and a society that coexists with nature, as well as conforming to established criteria, from two perspectives—environmental performance of the product and environmental management during manufacturing processes. We will continue to provide customers with Kawasaki-brand Green Products, boasting superior environmental performance.

Environmental performance of the products
 Low-carbon society
 Recycling-oriented society
 Society coexisting with nature

Environmental management during manufacturing processes
 Environmentally conscious products
 Environmental solutions

Kawasaki Super Green Products

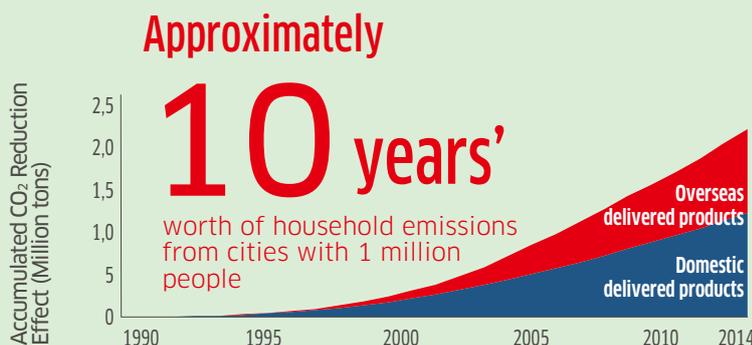
- LNG Fueled Pure Car and Truck Carriers
- efWING
- Straight Tube LED Lamps for Rail Cars

Kawasaki Green Products

- KC-MB-20, Multifunctional Controller for Construction Machinery
- Ninja H2
- Versys 1000
- Versys 650
- KAWASAKI ECO SERVO
- Painting Robot KJ264/314
- Clean Robot NT420
- M7A-03D Gas Turbine

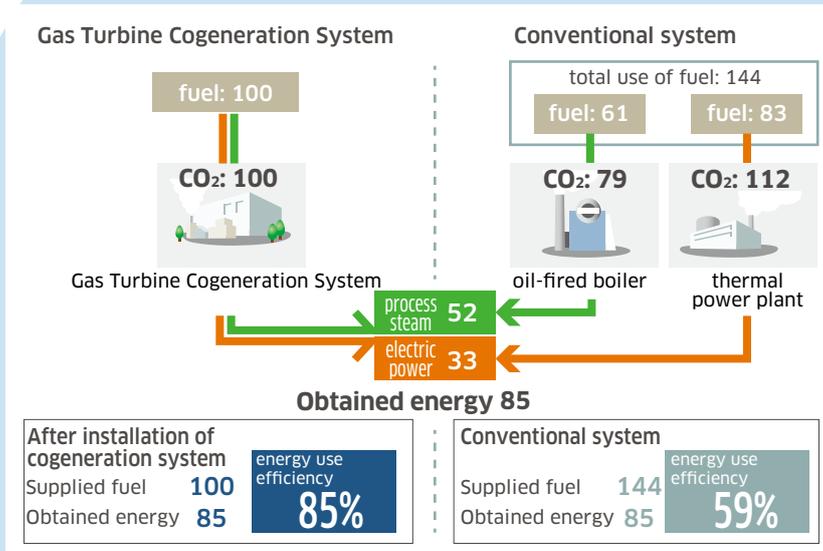
Pick Up!

CO₂ Reduction Effect Using Gas Turbine Cogeneration System



The use of Kawasaki gas turbine cogeneration systems significantly reduces the amount of CO₂ released into the atmosphere, and the CO₂ reduction effect based on actual deliveries of gas turbine cogeneration systems since 1989 is about 23 million tons—equivalent to approximately 10 years of CO₂ emitted in Japan from households in cities with one million people.

What is a Gas Turbine Cogeneration System?



A gas turbine cogeneration system produces electricity with a generator using a gas turbine as its main driver and utilized the heat for additional applications, such as air conditioning, hot water, and factory heating, which derives the most efficient use of supplied energy. Cogeneration systems have also been designated by the government, which will lead to wider use of these systems as distributed energy systems using natural gas.



M7A-03D Gas Turbine Domestic Delivery (Customer Comment)

Electricity and steam obtained from the gas turbine cogeneration system that was installed at the factory are used on the production floor. Since the system was installed, we have achieved an annual reduction effect of about 12,000kl, on a crude oil equivalent basis, compared with the use of existing boiler (gas- and heavy oil-fired) facilities. Converted to CO₂, that works out to about 30,000 tons per year, equivalent to emissions from around 5,600 typical households in Japan. In addition, the system has contributed to overall plant energy savings of about 22%.

Utility Section, Engineering Department, Okazaki Plant, Toray Industries, Inc.

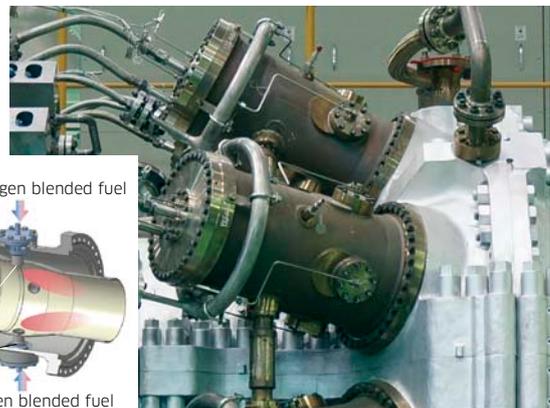
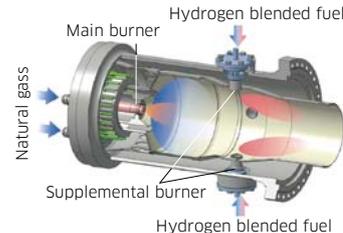
* Estimated annual CO₂ emissions from a single-family household are 5,270kg-CO₂. Source: Greenhouse Gas Inventory Office of Japan

Development of Hydrogen Gas Turbine Technology to Further Reduce CO₂ Emissions

Hydrogen-fired gas turbine combustion technology

Hydrogen is characterized by its fast rate of combustion and because of this, when used with conventional gas turbines, it is problematic, generating higher NO_x, exhibiting unstable combustion, and causing burner scaling. Seeking to solve these issues, Kawasaki has been working on the development of hydrogen combustion technology, which would make it possible to burn hydrogen-enriched natural gas in volumes from 0% to up to 100% (hydrogen only). Repeated combustion simulations and verification tests have been made at RWTH Aachen University in Germany with Kawasaki gas turbines, on the road to establishing proprietary hydrogen-fired gas turbine technology. (Kawasaki welcomed the start of demonstration testing for a low-NO_x, mixed hydrogen and gas-driven gas turbine system, commencing at its Akashi Works in May 2015.)

Combustor Schematic



Combustor facilitating hydrogen-blend combustion

The second set of Kawasaki-brand Green Products



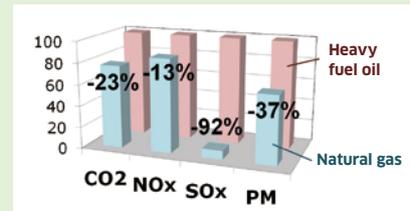
Kawasaki SUPER Green Product

LNG-Fueled Pure Car and Truck Carriers

Pure car and truck carriers achieving dramatic reduction in CO₂, NO_x and SO_x with natural gas-fueled main engine and power generator



The ME-GI engine cuts emissions of CO₂ by 23%, NO_x by 13%, SO_x by 92% and particulate matter by 37%. Boil-off gas is fully utilized through newly developed fuel gas supply system.



Product Description

A 3,800-vehicle pure car and truck carrier equipped with dual-fuel 2-stroke diesel engine (ME-GI), dual-fuel diesel generator (DFD) and dual-fuel auxiliary boiler—a world first for a pure car and truck carrier.

Special Features

- ME-GI engine cuts emissions of CO₂ by 23%, NO_x by 13%, SO_x by 92% and particulate matter by 37%, compared with conventional oil-fired main engines
- Optimizes propulsion performance at low speeds and cuts propulsion power at low speeds by about 3%
- LNG fuel system that effectively utilizes boil-off gas, reducing overall weight of system, including tanks, by about 15%



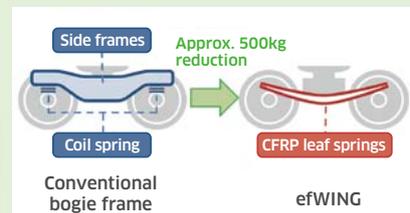
Kawasaki SUPER Green Product

efWING

Reduced power consumption and improved ride stability with world's first use of lightweight CFRP leaf springs in a bogie



Weight reduction of about one ton per car lowers running costs, such as electricity and maintenance expenses, and cuts CO₂ emissions. Noise and vibration are also minimized.



Product Description

A next-generation rolling stock bogie, the efWING features the world's first application of CFRP (carbon fiber reinforced plastic) in a bogie frame and also integrates the function of coil spring suspension into the enhanced frame design

Special Features

- Dramatic reduction in weight (about 500kg per bogie compared with existing bogies), which leads to lower running costs
- Enhanced safety and ride comfort (Running test performed at Transportation Technology Center, Inc., in the United States, with confirmed improvement in safety)
- Lighter weight reduces load on tracks, which then minimizes incidence of track irregularity, vibration and noise



Kawasaki SUPER Green Product

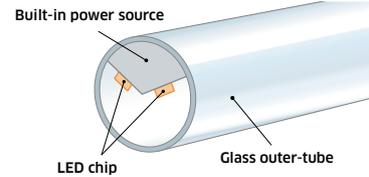
Straight Tube LED Lamps for Rail Cars

LED lamp with built-in power source for rail cars curbs power consumption and equipment weight



Compared with fluorescent lamps, including ballast, these lamps cut power consumption by 55% and weigh 75% less. Conversion to LED limits waste since LED lamps are suitable for existing fluorescent lamp fixtures.

Straight tube LED lamp with built-in power source



Product Description

Designed specifically for rail cars, these straight LED lamps feature a built-in power source, making it particularly easy to switch from existing rail car fluorescent lamps

Special Features

- Weigh about 49% less, compared with LED lamps that have a separately attached power device
- Switch to LED lamps using existing fluorescent lamp fixtures is possible during remodeling of existing rail cars, and installation of LED lamp will not necessitate removal/disposal of the existing lamp fixtures
- Emergency lamps (DC power source) will go out in a two-stage process (fully illuminated → semi-lit → off), accompanying the voltage drop that occurs when a rail car cannot operate normally (on battery power), and lighting time will be extended * Patented



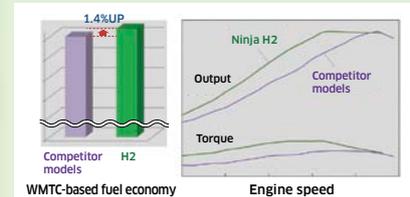
Kawasaki SUPER Green Product

Ninja H2

World's ultimate performance motorcycle, delivering outstanding power capabilities with low fuel consumption



Boasting a supercharged mass-produced motorcycle engine designed, in-house—a world first for a motorcycle—the Ninja H2 delivers outstanding power. But its fuel economy, based on the Worldwide Motorcycle Test Cycle (WMTC), is still one of the best among competitor models. In addition, emissions contain reduced levels of CO, total hydrocarbons (THC) and NOx.



A supercharged engine that delivers both power and fuel economy

Product Description

The biggest feature of the Ninja H2, developed through combined expertise in engine and body technologies within the KHI Group to offer riders an unprecedented sensory experience, is its supercharged mass-produced motorcycle engine using a highly efficient supercharger designed in-house

Special Features

Compared with competitor models in the same output class

- Excellent WMTC-based fuel economy
- Supercharged engine delivers intense acceleration and response
- New style of frame offers lightweight solution that transfers the power of the high-performance engine to the road with nothing lost
- Excellent aerodynamically designed body for riding stability



Kawasaki Green Product

Versys 1000/(650)

Touring performance and comfort with improved fuel economy and reduction in regulated exhaust emission substances

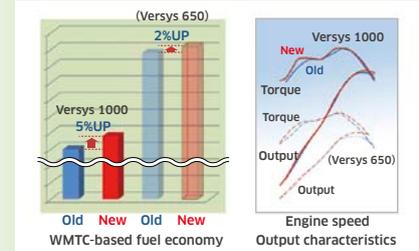


Versys 1000



(Versys 650)

Output is 2% higher than the 2012 model (up 9% for the 650), and WMTC-based fuel economy is 5% better (up 2% for the 650). Levels of CO, THC and NOx emissions are dramatically lower.



Product Description

Sharing similar features, the Versys 1000 and 650 are ideal motorcycles for touring, delivering better fuel economy through a model change along with dramatic reduction in regulated exhaust emission substances, and showcasing a sporty design with excellent performance and comfort

Special Features

Compared with Kawasaki predecessor model

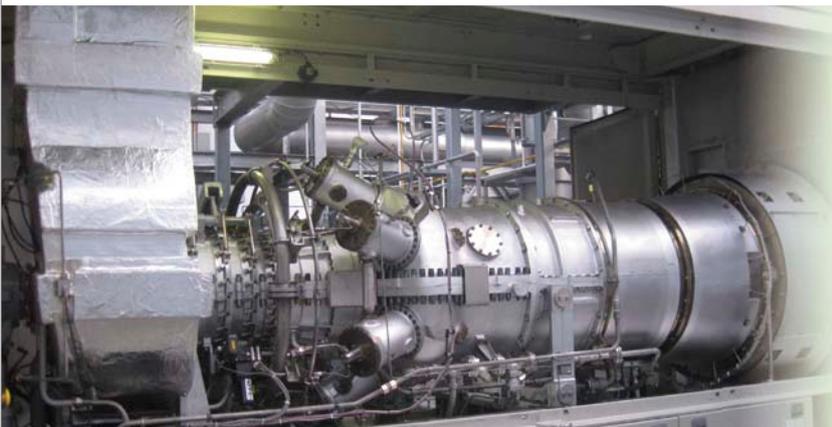
- WMTC-based fuel economy is 5% better (up 2% for the 650)
- CO₂ emissions down 5% (down 2% for the 650)
- Levels of CO, THC and NOx emissions are nearly 50% less
- Output is 2% higher (up 9% for the 650)



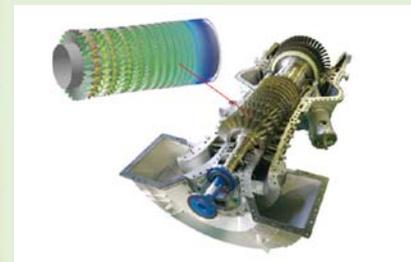
Kawasaki SUPER Green Product

M7A-03D Gas Turbine

Delivers world's highest total efficiency level in its class, and low-NOx performance



Optimized compressor, turbine and combustor design yield top-class total thermal efficiency of 85.2% and a guaranteed NOx value of 15ppm (O₂ = 15%).



Product Description

With high reliability and excellent economic and environmental efficiency, the M7A-03D is a power-generating gas turbine for world cogeneration systems in the 8MW class

Special Features

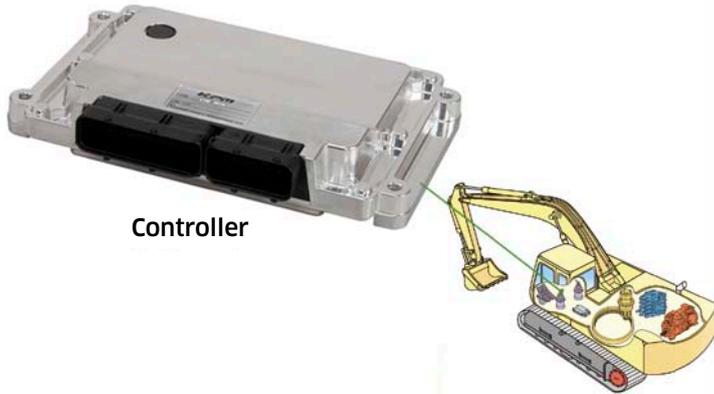
- Improved efficiency, through aerodynamically optimized design for compressor and turbine, underpins top efficiency level in its class
- Boasts world's highest total thermal efficiency level in its power class, thanks to higher exhaust gas energy
- Improved combustion burner and flow chamber geometry push NOx level down, contributing to its environmental performance as one of the industry's leaders



Kawasaki Green Product

KC-MB-20, Multifunctional Controller for Construction Machinery

Compact & long-life controller that applies control technology to reduce fuel consumption in construction machinery.



Controller

Improved fuel economy by about 10% over existing products, based on verification test using hydraulic excavator. Realized longer unit life through use of highly reliable components

Item	KC-MB-20	Existing product
Operating temperature range	-40 to 85 degrees C	-30 to 75 degrees C
Lightning surge	2000V	1000V
Transient voltage (power surge)	173V 350ms x 10 pulses	173V 350ms x 1 pulse
Control program	Newest logic (upgrade) + Customizable functions	Newest logic
Size	169 x 245mm	196 x 250mm

Product Description

Controls hydraulic equipment to prevent engine from being overworked and maximizes system capabilities, thereby contributing significantly to enhanced features and performance of construction machinery, including hydraulic excavators

Special Features

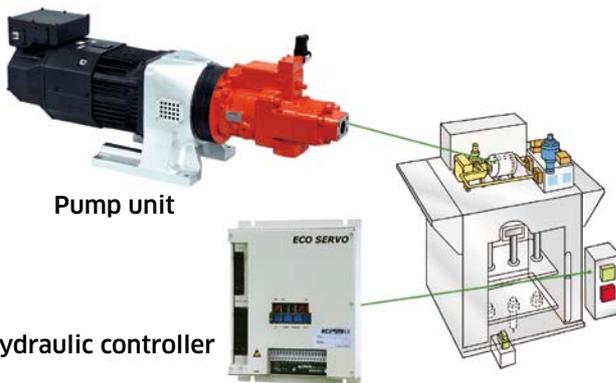
- Improved fuel economy of excavator achieved with application of new engine, pump and valve control logic
- 15% smaller than existing products
- Longer life: Durable, highly reliable design suited to environments where construction machinery is used



Kawasaki SUPER Green Product

KAWASAKI ECO SERVO

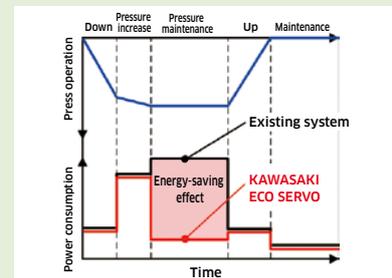
Electro-hydraulic hybrid system realizing industry's top energy saving and reduced noise.



Pump unit

Hydraulic controller

Speed control by K3VL high-efficiency pump, achieving 40% energy savings as compared with the existing system. System is made more compact by reduction in heat value.



Product Description

Electro-hydraulic hybrid system delivering energy savings and reduced noise by controlling speed of hydraulic pump, the pressure source of the hydraulic-drive system, in response to required power.

Special Features

- Industry leader in energy savings: Speed controlled by K3VL high-efficiency pump
- Reduced noise: Introduced the housing to restrain the propagation of pump vibration.
- Simple configuration contributes to improved maintainability.
- System is made more compact and lighter by reduction in heat value.



Kawasaki SUPER Green Product

Painting Robot KJ264/314

The most lightweight, streamlined and compact robots in their class



Realizing a 54% reduction in body mass compared with existing models, these lighter robots achieve a decrease of more than 20% in power consumption. The arms, with high-density placement capability, contribute to smaller paint booth dimensions. The robots reduce the consumption of energy used for air intake and exhaust in the paint booth.



Product Description

With industry-leading lightweight and slim profile features, these explosion-proof robots are used across many manufacturing sectors, including the automotive industry

Special Features

- Industry's most lightweight body mass per payload capability
- Reduced arm weight cuts power consumption by more than 20% compared with existing models
- Offers space-saving advantages, thanks to integrated treatment of painting cables inside the structure and arm body with slim profile
- Can be placed on the factory floor or shelf- or wall-mounted
- KJ314 has seven axes for greater degree of movement (interference avoidance)



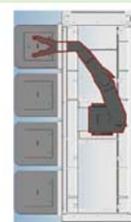
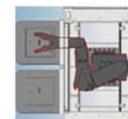
Kawasaki SUPER Green Product

Clean Robot NT420

Industry-leading compact, lightweight clean robot for high-speed, high-precision wafer-handling operations



With wide motion range eliminating the need for a traverse unit, this robot is one of the most compact, lightweight units in the industry and cuts energy consumption by about 40% over existing models. It also reduces shipping and packaging volume by 75% over existing models.



Product Description

Featuring a highly rigid gear train developed in-house, this robot delivers high-speed, high-precision wafer handling, with ability to access two to four Front Opening Unified Pods

Special Features

- Boasts exceptional reach and eliminates the need for a traverse unit, taking the top spot in the industry in terms of compact size and light weight
- Thanks to a gear train that delivers high power transmission efficiency and a design that does not require a traverse unit, power consumption per transfer length is about 40% less than that of existing models

Approach by the Motorcycle & Engine Company

Cleaner Exhaust Gas

In fiscal 2015, we continued to tackle technologies that make exhaust from motorcycles cleaner, from a world standard perspective, and launched sales of the VERSYS 1000, matching the appeal of a multipurpose model with high environmental performance and practical features. The VERSYS 1000 conforms to European emission standards, thanks to improvements in the air intake and exhaust systems. Within the air intake system, the electronic fuel injection system is equipped with dual throttle valves*1 for precise fuel control, accommodating all types of riding conditions. This ensures superior engine performance while producing cleaner exhaust gas.

VERSYS 1000 (overseas model)



*1 Dual throttle valve: a device that achieves optimal control of air intake volume through coordination between an electronically operated throttle and a manually operated throttle.

Promoting the 3Rs

Since October 2004, we have operated an independent motorcycle recycling system in cooperation with three other motorcycle manufacturers and 12 importers in Japan. In fiscal 2015, we achieved a recycling rate of 97.3%. Since October 2011, the user burden of recycling costs has become completely free of charge.

For new-model motorcycles, we emphasize environmentally conscious designs highlighting reduced materials and more recycling, right from the development phase. We conduct preliminary evaluations of efforts related to the 3Rs—reduce, reuse and recycle—before commencing design, prototyping and mass production phases. In particular, we seek to increase recyclability through greater use of materials that are easy to recycle and we have achieved a potential recycling rate exceeding 90% on every model, with most models exceeding 95%. This potential recycling rate was calculated based on the Guidelines for Definition and Calculation Method on the Recyclability Rate for New Vehicles (1998 Japan Automobile Manufacturers Association).

Reducing and Eliminating Environmental Substances of Concern

For new-model motorcycles sold in Japan, we already meet the voluntary targets of reduced environmental substances of concern (lead, mercury, hexavalent chromium and cadmium) set by the Japan Automobile Manufacturers Association, and we have also achieved voluntary targets for older models still being sold.

For general-purpose engines and JET SKI watercraft, there are no Japanese regulations such as the JAMA voluntary reduction targets, but we are making elimination and reduction efforts that follow those applied to motorcycles, and we had achieved voluntary reduction targets for lead, mercury and cadmium by fiscal 2008. Hexavalent chromium had been contained to a very small amount, but we completed its elimination in fiscal 2009.

Environmental Data

Kawasaki's Environmental Load Data (Fiscal 2015)	31
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Kawasaki's Environmental Load Data by Business Site (Fiscal 2015)	32
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- Gifu Works
- Nagoya Works 1
- Kobe Works
- Hyogo Works
- Nishi-Kobe Works
- Seishin Works
- Akashi Works
- Kakogawa Works
- Harima Works
- Sakaide Works

Environmental data of Subsidiaries	34
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Kawasaki's Environmental Load Data (Fiscal 2015)

		Unit	Whole group	Change from previous fiscal year	
INPUT	Total energy consumption (crude oil conversion)	kl	151,983	100%	
	Purchased electricity	MWh	367,818	104%	
	Fuel	TJ	2,309	93%	
	Renewable energy	MWh	1,749	93%	
	Materials	10,000 t	9	82%	
	Water	1,000 m ³	5,993	100%	
OUTPUT	Air	CO ₂ emissions volume from energy sources	t-CO ₂	318,211	121%
		SOx	t	10	140%
		NOx	t	176	122%
		Soot and dust	t	8	151%
		PRTR regulated substance	t	843	98%
	Water	Wastewater	1,000 m ³	4,583	129%
		COD	t	11	127%
		Nitrogen	t	26	131%
		Phosphorus	t	0.2	91%
		PRTR regulated substance	t	1	120%
	Waste	Total emitted	t	50,651	102%
		Recycled	t	49,419	102%
		Others	t	1,232	105%
		PRTR regulated substance in above total	t	263	114%
	Others	CO ₂ emissions during transport	t-CO ₂	4,120	107%

Kawasaki's Environmental Load Data by Business Site (Fiscal 2015) 1/2

		Unit	Gifu Works	Nagoya Works 1	Kobe Works	Hyogo Works	Nishi-Kobe Works	
INPUT	Total energy consumption (crude oil conversion)	kl	35,282	12,237	12,627	5,395	16,300	
	Purchased electricity	MWh	69,681	47,251	33,391	16,773	58,263	
	Fuel	TJ	687	15	165	44	65	
	Renewable energy	MWh	0	627	27	28	566	
	Water	1,000 m ³	4,008	46	307	82	148	
OUTPUT	Air	CO ₂ emissions volume from energy sources	t-CO ₂	71,456	25,079	26,325	11,070	33,374
		SOx	t	1	Under 0.1	8	0	0
		NOx	t	60	0.5	94	0.7	1
		Soot and dust	t	0.6	Under 0.1	3	Under 0.1	Under 0.1
		PRTR regulated substance	t	120	1	97	92	48
	Water	Wastewater	1,000 m ³	3,339	9	150	82	53
		COD	t	9	0.2	Under 0.1	Under 0.1	0.3
		Nitrogen	t	24	0.2	Under 0.1	Under 0.1	0.8
		Phosphorus	t	Under 0.1	Under 0.1	Under 0.1	Under 0.1	Under 0.1
		PRTR regulated substance	t	1	0	0	0	0
	Waste	Total emitted	t	5,411	768	9,790	4,135	4,376
		Recycled	t	5,411	768	9,761	4,135	4,376
		その他(焼却・埋立)	t	0	0	29	0	0
		PRTR regulated substance in above total	t	73	0	26	42	30

Gifu Works (Including Nagoya Works 1)

Location 1, Kawasaki-cho, Kakamigahara, Gifu 504-8710, Japan
Main products Transport airplanes, helicopters, spacecraft, component parts for airplanes



Kobe Works

Location 1-1, Higashikawasaki-cho 3-chome, Chuo-ku, Kobe, Hyogo 650-8670, Japan
Main products Ships & maritime application equipment, steam turbines for ground and maritime applications, diesel engines



Hyogo Works

Location 1-18, Wadayama-dori 2-chome, Hyogo-ku, Kobe, Hyogo 652-0884, Japan
Main products Rolling stock, automated guideway transit systems, platform screen doors



Nishi-Kobe Works

Location 234, Matsumoto, Hazetani-cho, Nishi-ku, Kobe, Hyogo 651-2239, Japan
Main products Various hydraulic systems for industrial use, marine machinery, precision machinery and equipment



Note: CO₂ emissions are impacted by the electricity emission factor.

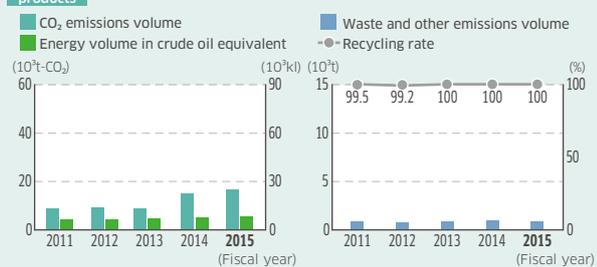
Kawasaki's Environmental Load Data by Business Site (Fiscal 2015) 2/2

		Unit	Seishin Works	Akashi Works	Kakogawa Works	Harima Works	Sakaide Works	
INPUT	Total energy consumption (crude oil conversion)	kl	8,182	44,943	3,297	4,714	8,016	
	Purchased electricity	MWh	25,523	62,980	6,272	15,215	29,001	
	Fuel	TJ	70	1,131	67	34	29	
	Renewable energy	MWh	0	153	0	5	43	
	Water	1,000 m ³	77	879	12	84	349	
OUTPUT	Air	CO ₂ emissions volume from energy sources	t-CO ₂	16,716	93,794	6,642	9,641	22,172
		SOx	t	0	0	0	0	0
		NOx	t	1	17	0	0.4	Under 0.1
		Soot and dust	t	Under 0.1	0.4	0	Under 0.1	Under 0.1
		PRTR regulated substance	t	10	110	0	22	343
	Water	Wastewater	1,000 m ³	56	546	5	33	310
		COD	t	0.6	1	Under 0.1	Under 0.1	0.3
		Nitrogen	t	0.5	1	Under 0.1	Under 0.1	0.4
		Phosphorus	t	Under 0.1	Under 0.1	Under 0.1	Under 0.1	Under 0.1
		PRTR regulated substance	t	0	Under 0.1	0	0	0
	Waste	Total emitted	t	917	8,569	1,299	4,725	10,621
		Recycled	t	917	8,557	1,299	4,725	9,430
		その他(焼却・埋立)	t	0	12	0	0	1,191
		PRTR regulated substance in above total	t	3	76	0	2	11

Seishin Works

Location 8-1, Takatsukadai 2-chome, Nishi-ku, Kobe, Hyogo 651-2271, Japan

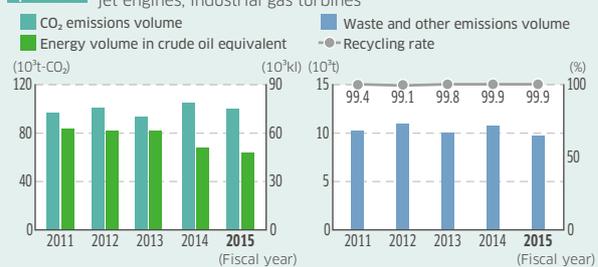
Main products Component parts for jet engines and gas turbines



Akashi Works (Including Kakogawa Works)

Location 1-1, Kawasaki-cho, Akashi, Hyogo 673-8666, Japan

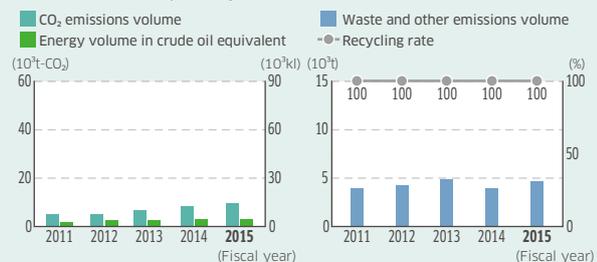
Main products Motorcycles, General-purpose gasoline engines, industrial robots, jet engines, industrial gas turbines



Harima Works

Location 8, Nijima, Harima-cho, Kako-gun, Hyogo 675-0155, Japan

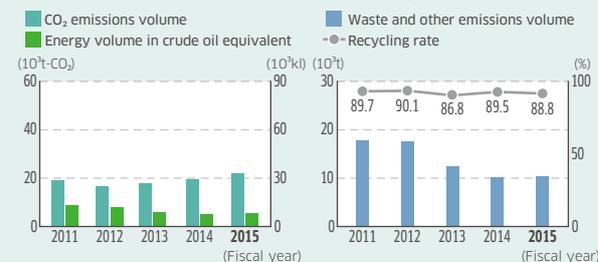
Main products Industrial & environmental plants, boilers, construction machinery, rolling stock



Sakaide Works

Location 1, Kawasaki-cho, Sakaide, Kagawa 762-8507, Japan

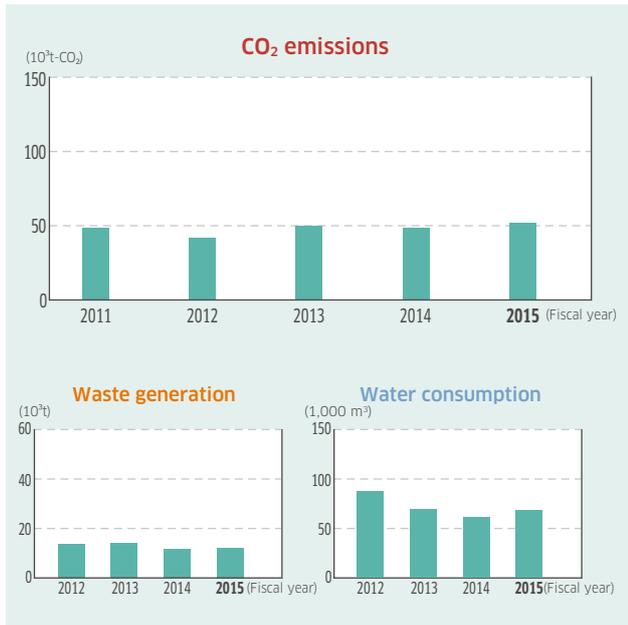
Main products Ships & maritime application equipment (LNG carriers, LPG carriers, container ships, etc.)



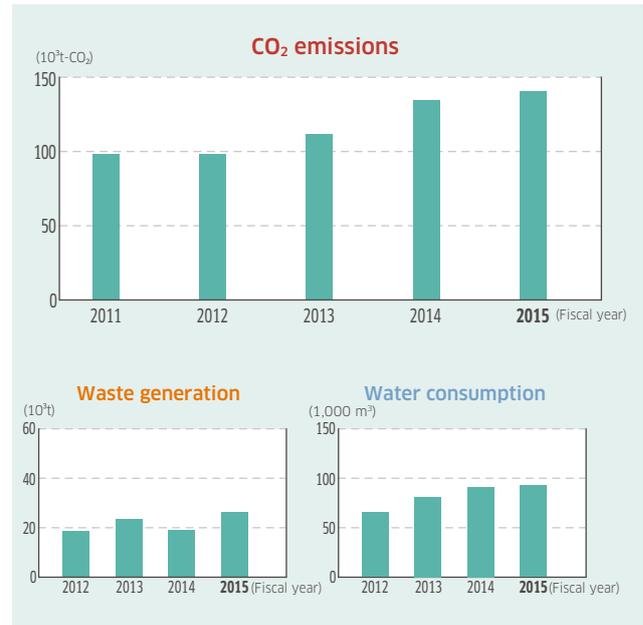
Note: CO₂ emissions are impacted by the electricity emission factor.

Environmental Data of Subsidiaries

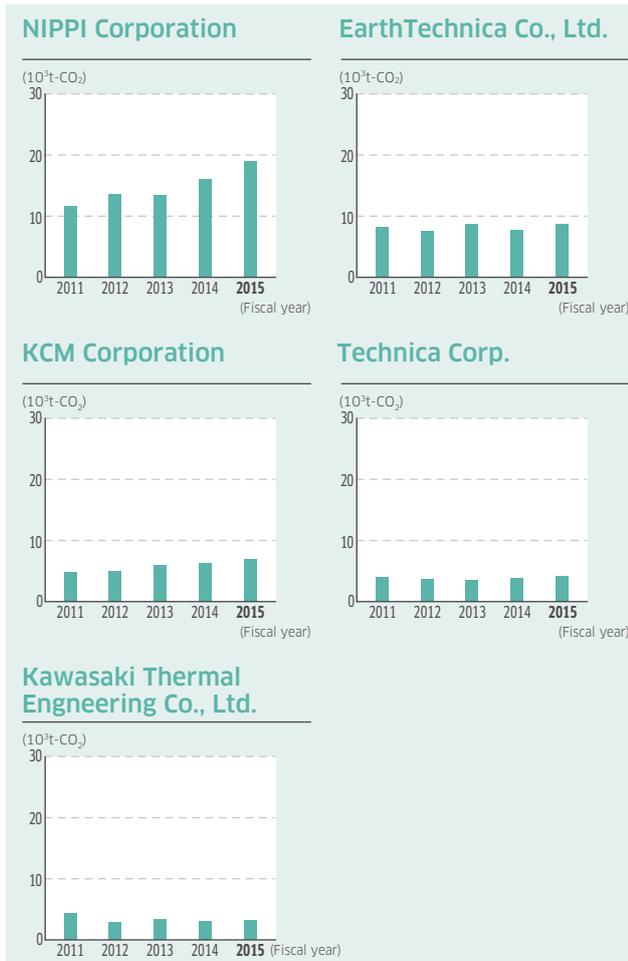
Total for Domestic Subsidiaries



Total for Overseas Subsidiaries



CO₂ emission of domestic major subsidiaries



CO₂ emission of overseas major subsidiaries



Note: the CO₂ emissions coefficients used in graphs are in principle those indicated below.

- Ministry of the Environment website: List of emission factors for electric power providers, published by Japan's Ministry of the Environment (Used in submission for 2015) <http://ghg-santeikohyo.env.go.jp/calc> (Japanese only)
- For CO₂ emissions volume through overseas electricity consumption, the figures published by the Greenhouse Gas Protocol are used.
- Subsidiary environmental data collection targets are, in principle, the companies with EMS that are listed on page 19.