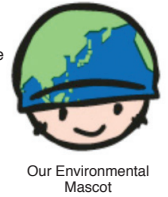


# Promotion of Environmental Management

## Establishment of 2020 Environmental Vision (What Kawasaki Should Be in the Year 2020)

Manufacturing that makes the Earth smile



Under our Group Mission “Kawasaki, working as one for the good of the planet,” the KHI Group has established “Kawasaki Business Vision 2020” as well as the “2020 Environmental Vision,” which seeks to optimize our relationship to the environment in 2020 in terms of integrating environmental and business considerations. Following the Environmental Philosophy of our Environmental Charter, the 2020 Environmental Vision seeks to achieve three things: a low-carbon society, a sound material-cycle society and a society that coexists with

nature. As a foundation for these, a fourth item, “Establishment of Environmental Management Systems,” is set as basic policy with the goal of helping to build a sustainable society.

To achieve that vision, we have set out an Environmental Management Activities Plan every three years. We have set targets for the three years beginning in 2010 as our seventh Environmental Management Activities Plan period.

## Flow of Environmental Management



## Environmental Charter Established in 1999, rev. 2010

### Environmental Philosophy

Seeking to contribute to the development of society through the art of manufacturing, the Kawasaki Heavy Industries Group conducts its business activities globally as a company in key industries of the land, sea and air. We seek to achieve a low-carbon society, a sound material-cycle society and a society that coexists with nature in order to help solve global environmental problems. We contribute to the sustainable development of society through business activities attuned to the natural environment and through environmentally conscious products and services.

### Conduct Guidelines

1. Recognizing that global environmental protection is a common and serious issue for humankind, Kawasaki will positively volunteer to engage itself in harmonizing with the environment globally. We shall regard this as one of the most important strategies when we deploy our business activities.
2. During its production stages, Kawasaki will endeavor to conserve resources, to save energy, to recycle resources and to reduce industrial waste and will promote the reduction of environmental impact.
3. In the new product planning (i.e. research and development) and designing stages, Kawasaki will render careful attention throughout the procurement, production, distribution, utilization and material disposal stages in order to minimize the environmental impact.
4. Kawasaki will minimize the impact of its business activities on ecosystems and proactively protect those ecosystems.
5. In seeking solutions to global environmental issues, Kawasaki will do its best to develop and provide new technologies and new products that contribute to environmental protection, energy saving and resource conservation.
6. Notwithstanding its compliance with environmentally related institutional laws, regulations and agreements and voluntary action plans of each industry concerned, Kawasaki will voluntarily institute its own environmental control standards as an appropriate and necessary action in order to strive to improve environmental control levels.
7. Through environmental training and public awareness activities, Kawasaki will strive to enlighten all its employees on global environmental issues and will support individual views, lifestyles and will encourage their participation in the social activities and services.
8. Kawasaki will implement an environmental management system to promote environmental preservation and conservation, and hold regular conferences to review management systems and maintain continual improvement.

## 2020 Environmental Vision

Our products and manufacturing that use energy without waste

Manufacturing that uses resources without waste

Manufacturing that is in harmony with the global environment

Establishment of environmental management systems (EMS)



## Three Points of Entry onto the Path Toward Realization of a Sustainable Society

### Realization of a low-carbon society

Contribute to the prevention of global warming **by means of our products and manufacturing that use energy without waste.**

#### ■ Perspective on our activities

In many areas of the world, global warming appears to be driving wide-scale climate change. To address problems like these that affect our planet's sustainability, Kawasaki is working to reduce the greenhouse gas emissions associated with our business activities and providing products and services that help reduce those same emissions, thereby contributing to building a low-carbon society.

#### ■ Ideal in 2020

- (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 sound material-cycle society

We **engage in manufacturing that uses resources without waste** in order to recycle and fully utilize limited resources.

#### ■ Perspective on our activities

Planetary resources to support human life are now being consumed faster than the earth can naturally replace them. Kawasaki endeavors to conduct business and develop products in order to fully use, reuse and recycle limited resources as the precious quantities they are and thereby help achieve a sound material-cycle society.

#### ■ Ideal in 2020

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

### Realization of a society coexisting with nature

**Through manufacturing that is in harmony with the global environment,** we are contributing to minimization of environmental impact and conservation of the ecosystem.

#### ■ Perspective on our activities

Biological diversity sustains the ecosystems that make up our global environment. Biodiversity provides us with food and natural resources, regulates our climate, cycles materials and cleans the environment.

We will conduct business activities that lessen our burden on the environment and we will help prevent pollution and protect ecosystems through our products and technologies.

#### ■ Ideal in 2020

- (1) Offer customers products and services that prevent air and water pollution, and advance environmental 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.

## Environmental Management Activities

### Establishment of environmental management systems

Building a foundation for environmental management that will realize the 2020 Environmental Vision

#### ■ Perspective on our activities

We aim to achieve a sustainable society and to contribute to more prosperous lifestyles for the people of the world and a brighter future for the global environment through environmentally conscious business activities and Kawasaki products and services.

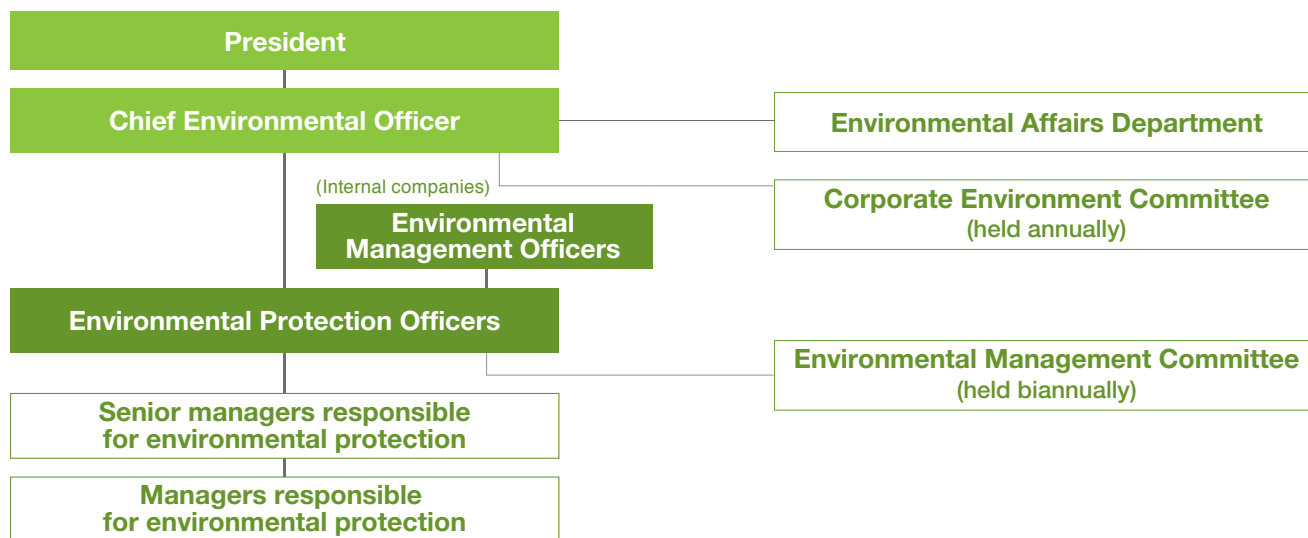
#### ■ Ideal in 2020

- (1) Have an environmental management system (EMS) in place at every consolidated subsidiary in Japan and abroad and practice environmental management throughout the Group.
- (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.

## Environmental Management Organization

The KHI Group appoints a Chief Environmental Officer (the director for environmental issues) and deliberates and makes decisions on a variety of important matters in its Corporate Environment Committee, which the Chief Environmental Officer chairs. We additionally appoint Environmental Management Officers, Environmental Protection Officers, senior managers responsible for

environmental protection and managers responsible for environmental protection for the organization of each internal company to allow each division to voluntarily carry out the Environmental Management Activities Plan decided on, and we establish an organizational system under which members can work together to advance environmental activities.



## Achievements and Evaluation of the Sixth Environmental Management Activities Plan

Evaluation: ◎ : Achieved ○ : Greater than 70% achieved △ : Less than 70% achieved

The Sixth Environmental Management Activities Plan (2008-09)	Activity results	Evaluation
<b>Environmental Management</b> Promotion of environmental management to increase the social trust of the Kawasaki Group		
<b>1. Follow up on environmental management plan incorporated into short-term business plan</b> ① Initiatives to reduce greenhouse gas emissions ・ Activities to reduce total amount ・ Reduce CO <sub>2</sub> basic unit (=CO <sub>2</sub> emissions per net sales) Reduce average basic unit in FY2008-2012 10% compared to FY2007 benchmark	① Activities to reduce greenhouse gas emissions ・ Activities to reduce total amount FY2009 total emissions reduced 19.3% compared to FY2008 ・ Reduced basic unit FY2009 basic unit reduced 7.7% compared to FY2008 ・ Reduced emissions by participating in domestic emissions trading system	○
② Capital investment in environmental measures to reduce environmental risk	② Capital investment in environmental measures to reduce environmental risk ・ Followed up on capital investment plans for reducing CO <sub>2</sub> , protecting the environment and reducing chemical substances	◎
③ Establish and follow through on PCB processing plan	③ Followed up on PCB processing plan execution status	○
<b>2. Environmental risk management</b>		
① Build an EMS at Kawasaki Group	① Built an EMS at Kawasaki Group ・ Built EMS at subsidiaries in Japan and major production bases overseas ・ Studied ways to increase precision of environmental data and expand range of data collected ・ Began survey of CO <sub>2</sub> emissions results at subsidiaries	○
② Manage risks by performing risk reviews of production and environmental facilities	② Identified latent risk of production and environmental facilities as based on environmental risk review	○
③ Establish environmental crisis management system	③ Established environmental crisis management system ・ Created stronger link with Group-wide crisis management system as based on our CSR framework	◎
④ Comply thoroughly with environmental laws, agreements and regulations on reporting, etc.	④ Followed up on environmental laws ・ Activities of Environmental Law and Regulation Compliance Status Review Committee	◎
<b>Environmentally Conscious Products</b> Contribute to the sustainable development of society through technologies and products conducive to environmental impact alleviation		
<b>1. Activities to reduce environmental burdens over product life cycle</b>		
① Evaluate environmental burden reductions over product life cycle (CO <sub>2</sub> , SOx, NOx, etc., at usage stage)	① Examined internal techniques for evaluating environmental burden reductions over the life cycle of major products	△
② Expand offerings of green products to reduce chemical substances ・ Establish design and procurement policies for a greener product lineup	② Publicized green products and deployed same improvements to similar products ・ Responded conscientiously to laws and regulations and promoted voluntary initiatives (RoHS, REACH, etc.)	△
<b>Environmentally Conscious Production</b> Efforts to reduce environmental burdens with production activities designed for production efficiency		
<b>1. Reduce environmental burdens in our production activities</b>		
① Activities to reduce waste emissions per unit of net sales	① Reduced emissions per net sales ・ FY2009 total emissions reduced 17% compared to FY2008	○
② Activities to reduce chemical substances ・ Reduce VOC emissions, amounts of hexavalent chromium and lead handled, etc.	② Activities to reduce chemical substances ・ FY2009 emissions of major VOCs (toluene, xylene, ethylbenzene) reduced approximately 3% compared to FY2008 ・ FY2009 amount of lead handled reduced approximately 33% compared to FY2008	△
<b>Environmental Communication</b> Efforts to improve mutual trust with stakeholders		
<b>1. Internal environmental education and awareness-raising efforts</b>		
① Operate and develop environmental education system with IT	① Expanded Group environmental education ・ Expanded environmental e-learning to subsidiaries ・ Gave training for persons without PCs	○
② Continue environmental awareness-raising initiatives for Kawasaki Group employees	② Environmental awareness-raising initiatives for Kawasaki Group employees ・ Published environmental news ・ Participated in company forest restoration program in Hyogo Prefecture	◎
<b>2. Disclose information to stakeholders</b>		
・ Fuller disclosures of environmental data ・ Active cooperation in environmental initiatives of national and local governments	・ Published Environmental and Social Report ・ Made social contributions through company's business and community activities	

# The Seventh Environmental Management Activities Plan and Priority Initiatives for FY2010

We have set the seventh Environmental Management Activities Plan (FY2010-2012), which starts off our 2020 Environmental Vision, and Priority Initiatives for FY2010, and are working toward realizing our vision.

## Priority Initiatives of the Seventh Environmental Management Activities Plan

### ■ Global Warming Countermeasures

We endeavor to achieve targets that are fundamentally about reducing total greenhouse gas emissions from our production activities, along with emissions per net sales to indicate our progress toward greater productivity.

### ■ Waste Reduction Initiatives

Each works pursues activities suited to its own characteristics, while the Group in total endeavors to reduce our top three waste types (metal scrap, waste oil and wood scrap), conserve resources and practice the 3R's.

### ■ Chemical Substance Reduction Initiatives

We set reduction targets at each business site for the chemical substances we are working to reduce Group-wide, namely major VOCs, dichloromethane and harmful heavy metals, and we strive to reduce these from both design and production angles.

### ■ A Foundation for Environmental Management

- We seek to build an environmental management system at the all-Group level.
- We practice environmental risk management and provide employee training to prevent environmental problems.

The Seventh Environmental Management Activities Plan (FY2010-2012)	Priority Initiatives for FY2010
<p><b>Realization of a low-carbon society</b> Contribute to the prevention of global warming by means of our products and manufacturing that use energy without waste.</p> <p>Global warming prevention measures</p> <ol style="list-style-type: none"> <li>① Reduce CO<sub>2</sub> emissions from our own production activities           <ul style="list-style-type: none"> <li>· Make CO<sub>2</sub> more tangible to promote energy-saving activities Group-wide</li> <li>· Create a verification system</li> <li>· Take Group-wide CO<sub>2</sub> reduction measures (energy-saving capital investment)</li> <li>· Promote energy savings from logistics as a specified consignor</li> </ul> </li> <li>② Acquire emissions credits with KHI Group products and technologies           <ul style="list-style-type: none"> <li>· Create a system to acquire emissions credits with KHI Group products and technologies in Japan and abroad (e.g., CDM)</li> </ul> </li> <li>③ Purchase emissions credits from trading market           <ul style="list-style-type: none"> <li>· Take measures in case we do not meet CO<sub>2</sub> reduction targets</li> </ul> </li> <li>④ Acquire emissions credits by endowment or donation           <ul style="list-style-type: none"> <li>· <b>Group-wide target</b> By FY2012, reduce our average amount of CO<sub>2</sub> basic unit (=CO<sub>2</sub> emissions per net sales) for FY2008-2012 by 10% compared to FY2007</li> </ul> </li> </ol>	<p><b>Realization of a low-carbon society</b> Contribute to the prevention of global warming by means of our products and manufacturing that use energy without waste.</p> <p>Global warming prevention measures</p> <ol style="list-style-type: none"> <li>① Reduce CO<sub>2</sub> emissions from our own production activities           <ul style="list-style-type: none"> <li>· Make CO<sub>2</sub> emissions tangible and verifiable (inc. responding to Revised Energy Saving Law)</li> <li>· Take Group-wide CO<sub>2</sub> reduction measures (energy-saving capital investment)</li> <li>· Strengthen voluntary reduction initiatives of each department and follow through with plans</li> </ul> </li> <li>② Acquire emissions credits with KHI Group products and technologies           <ul style="list-style-type: none"> <li>· Give indirect support for activities of each department for reducing CO<sub>2</sub> with UN CDM program, etc.</li> </ul> </li> <li>③ Purchase emissions credits from trading market           <ul style="list-style-type: none"> <li>· Examine cost burden of purchasing portion of reduction targets not achieved</li> </ul> </li> <li>④ Acquire emissions credits by endowment or donation           <ul style="list-style-type: none"> <li>· Study forest conservation activities, use of green electric power, etc.</li> </ul> </li> </ol>
<p><b>Realization of a sound material-cycle society</b> We engage in manufacturing that uses resources without waste in order to recycle and fully utilize limited resources.</p> <p>Activities to reduce total waste emissions</p> <ol style="list-style-type: none"> <li>① Promote resource savings and 3R (reduce, reuse, recycle)</li> <li>② Zero emissions activities, increasing recycling rate           <ul style="list-style-type: none"> <li>· <b>Group-wide target</b> By FY2012, reduce waste basic unit (=waste emissions per net sales) by 12% compared to FY2002, maintain zero emissions</li> </ul> </li> </ol> <p>Decide on proper treatment plan for PCB wastes and follow through</p>	<p><b>Realization of a sound material-cycle society</b> We engage in manufacturing that uses resources without waste in order to recycle and fully utilize limited resources.</p> <p>Activities to reduce total waste emissions</p> <ol style="list-style-type: none"> <li>① Activities to reduce three substances with greatest waste emissions (metal scrap, waste oil, wood scrap)</li> <li>② Promote resource savings and 3R</li> <li>③ Maintain and enhance zero emissions</li> <li>④ Promote implementation of electronic manifests</li> </ol> <p>Decide on proper treatment plan for PCB wastes and follow through</p> <ol style="list-style-type: none"> <li>① Follow through on JESCO commissioned processing</li> <li>② Follow through on processing trends and number of processed units of equipment containing low-density PCBs</li> </ol>
<p><b>Realization of a society coexisting with nature</b> Through manufacturing that is in harmony with the global environment, we are contributing to minimization of environmental impact and conservation of the ecosystem.</p> <p>Activities to reduce chemical substances</p> <ul style="list-style-type: none"> <li>· Set reduction targets and promote activities (both design and production initiatives)</li> <li>· <b>Group-wide target</b> Set controlled chemical substances reduction target for FY2010-2012 compared to average for FY2003-2005</li> </ul> <p>Environmental contributions through products and technologies</p> <ol style="list-style-type: none"> <li>① Activities to reduce environmental impacts over product life cycle           <ul style="list-style-type: none"> <li>· Prepare foundation for performing product life cycle assessment</li> </ul> </li> <li>② Make products greener, promote environmental consciousness in products</li> </ol> <p>Reduce impact on and conserve biodiversity</p> <ul style="list-style-type: none"> <li>· Decide on biodiversity action guidelines and promote conservation</li> </ul>	<p><b>Realization of a society coexisting with nature</b> Through manufacturing that is in harmony with the global environment, we are contributing to minimization of environmental impact and conservation of the ecosystem.</p> <p>Activities to reduce chemical substances</p> <ol style="list-style-type: none"> <li>① Perform critical point follow-through in departments stepping up reduction measures in seventh plan           <ul style="list-style-type: none"> <li>· Learn and organize usage status, clarify issues and set targets</li> </ul> </li> </ol> <p>Environmental contributions through products and technologies</p> <ol style="list-style-type: none"> <li>① Activities to reduce environmental impacts over product life cycle           <ul style="list-style-type: none"> <li>· Select model products and examine evaluation techniques</li> <li>· Report environmental contributions from products and technologies</li> </ul> </li> <li>② Make products greener           <ul style="list-style-type: none"> <li>· Respond thoroughly to laws and regulations (RoHS Directive, REACH Regulations, etc.)</li> <li>· Promote green procurement (set a green purchasing rate and take measures to achieve it)</li> </ul> </li> </ol> <p>Activities to protect biodiversity</p> <ol style="list-style-type: none"> <li>① Promote initiatives within works</li> </ol>
<p><b>Establishment of environmental management systems</b> Building a foundation for environmental management that will realize the 2020 Environmental Vision</p> <p>Build an EMS at KHI Group</p> <ul style="list-style-type: none"> <li>· <b>Group-wide target</b> Finish building EMS at consolidated subsidiaries in Japan and abroad that are key production bases by FY2012</li> </ul> <p>Thoroughly comply with environmental laws and regulations</p> <ul style="list-style-type: none"> <li>· Prevent recurrence of environmental accidents, etc.</li> </ul> <p>Practice environmental communication</p> <ul style="list-style-type: none"> <li>· Promote environmental dialog with all stakeholders</li> </ul>	<p><b>Establishment of environmental management systems</b> Building a foundation for environmental management that will realize the 2020 Environmental Vision</p> <p>Build an EMS at KHI Group</p> <ol style="list-style-type: none"> <li>① Decide on and promote plan for building EMS at consolidated subsidiaries in Japan and abroad</li> <li>② Collect major environmental data for entire Group (energy, waste, chemical substances, etc.)</li> </ol> <p>Thoroughly comply with environmental laws and regulations</p> <ol style="list-style-type: none"> <li>① Activities of Environmental Law and Regulation Compliance Status Review Committee</li> <li>② Follow up on environmental law revisions, etc., and expand Group-wide</li> </ol> <p>Practice environmental communication</p> <ol style="list-style-type: none"> <li>① Awareness-raising activities for KHI Group employees (environmental education)</li> <li>② Disclose environmental data within and beyond Group (issue environmental news, CSR report, etc.)</li> <li>③ Company forest restoration program</li> </ol>