

## Seventh Environmental Management Activities Plan (FY2011–2013): Fiscal 2013 Results and Evaluation

The KHI Group engages in business founded on the need to promote the advancement of society and the nation through manufacturing, and it has sought to develop a global enterprise in key industries related to land, sea and air. To integrate these activities with the resolution of global environmental problems, we are working in terms of four themes: realization of a low-carbon society; realization of a recycling-oriented society; realization of a society coexisting with nature; and establishment of EMS in our Seventh Environmental Management Activities Plan (fiscal 2011 to fiscal 2013; referred to as the Seventh Plan). In the table below, we present the results of our activities in fiscal 2013 and an evaluation of the Seventh Plan.

### Seventh Environmental Management Activities Plan (FY2011–2013)

#### Realization of a Low-Carbon Society

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

##### 1. Global warming prevention measures

- 1) Reduce CO<sub>2</sub> emissions from our own production activities; make CO<sub>2</sub> more tangible to promote energy-saving activities Group-wide; create a verification system
  - Undertake Group-wide CO<sub>2</sub> reduction measures (energy-saving capital investment)
  - Promote energy savings from logistics as a specified consignor
- 2) Acquire emissions credits with KHI Group products and technologies
  - Create a system to acquire emissions credits with the KHI Group products and technologies in Japan and abroad (e.g., CDM)
- 3) Purchase emissions credits from the trading market
  - Take precautionary measures in the event that we do not meet CO<sub>2</sub> reduction targets
- 4) Acquire emissions credits through endowment or donation

#### Group target

By fiscal 2013, reduce our average amount of CO<sub>2</sub> emission per unit of sales (CO<sub>2</sub> emissions per net sales) for fiscal 2009 through fiscal 2013 by 10%, compared with fiscal 2008

#### Realization of a Recycling-Oriented Society

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

##### 1. Activities to reduce total waste emissions

- 1) Promote resource savings and the 3Rs (reduction of waste generation, reuse, and recycling)
- 2) Zero emissions activities, increasing recycling rate

#### Group target

By fiscal 2013, reduce waste basic unit (waste emissions per net sales) by 12%, compared with fiscal 2003; maintain zero emissions

##### 2. Decide on proper treatment (decomposition) plans for PCB waste and follow through with appropriate measures

#### 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. Activities to reduce chemical substances

- Set reduction targets and promote activities (both design and production initiatives)

#### Group target

Set the controlled chemical substances reduction target for fiscal 2011 through fiscal 2013, compared with the average for fiscal 2004 through fiscal 2006

##### 2. Environmental contributions through products and technologies

- 1) Activities to reduce the environmental impact over the product life cycle
  - Prepare a foundation for performing product life cycle assessment
- 2) Make products greener, and promote environmental consciousness in products

##### 3. Reduce the impact on and conserve biodiversity

- 1) Decide on biodiversity action guidelines and promote conservation

#### Establishment of Environmental Management Systems

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

##### 1. Formulate EMS for the KHI Group

#### Group target

By fiscal 2013, finish formulating EMS at factories and consolidated subsidiaries in Japan and abroad that are key production bases

##### 2. Comply thoroughly with environmental laws and regulations

- Prevent a recurrence of environmental accidents, etc.

##### 3. Practice environmental communication

- Promote an environmental dialogue with all stakeholders

## Main Strategies of the Seventh Environmental Management Activities Plan

<b>Realization of a low-carbon society</b>	We will take concrete action in the form of measures to counter global warming as a step toward meeting the Group-wide greenhouse gas target for the period up to fiscal 2013, which is to achieve a 10% reduction from fiscal 2008 levels in average emissions per unit of sales for the fiscal years 2009 to 2013.
<b>Realization of a recycling-oriented society</b>	To reduce total waste emissions, we will continue working Group-wide on activities such as resource-saving and promotion of the 3Rs (reduction of waste generation, reuse, and recycling).
<b>Realization of a society coexisting with nature</b>	We will continue promoting action to reduce chemical substances, environmental contribution through products and technology, etc.
<b>Establishment of environmental management systems</b>	As well as promoting the establishment of EMS at domestic and overseas consolidated subsidiaries, we will also take action on environmental risk management and environmental education for employees.

	Results of Fiscal 2013 Activities	Evaluation of the Seventh Plan
	1. Global warming prevention measures 1) Reduction of CO <sub>2</sub> emissions through our production activities <ul style="list-style-type: none"> <li>The target for average emissions per unit of sales was not met; excess emissions were covered by CO<sub>2</sub> credits</li> <li>The effectiveness of the energy visualization system was confirmed at a pilot factory</li> <li>Energy-saving facilities were introduced and their efficacy verified</li> </ul> 2) Delivery of energy-efficient products <ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions reduction through products totaled approximately 500,000t-CO<sub>2</sub></li> </ul> 3) Purchase of carbon credits on the market <ul style="list-style-type: none"> <li>CO<sub>2</sub> credits were acquired through the Japanese domestic emissions credit system</li> </ul> 4) Acquisition of emissions credits through donations and other voluntary activities <ul style="list-style-type: none"> <li>A CO<sub>2</sub> Removal Certificate was received for forest conservation activities</li> </ul>	○
	1. Activities to reduce total waste emissions 1) Total emissions per unit of sales were reduced by 23% and the target was therefore met 2) Zero emission status was maintained with a final disposal ratio of 1% or below	○
	2. Formulation and monitoring of plans for appropriate treatment of PCB waste 1) For equipment containing high concentrations of PCB, commissioning of treatment to the Japan Environmental Safety Corporation (JESCO) was begun 2) For equipment containing low concentrations of PCB, a survey of treatment trends has been conducted	○
	1. Activities to reduce chemical substances 1) Target setting for both design and production operations <ul style="list-style-type: none"> <li>Introduction of low-VOC paints and heavy metal-free paints progressed, but some targets were not met</li> </ul>	△
	2. Environmental contribution through products and technology <ul style="list-style-type: none"> <li>Environmental load reduction was promoted through production activities and products</li> <li>A full response was ensured to chemical substance-related laws and regulations (the ELV Directive, the RoHS Directive, the REACH Regulation, etc.)</li> <li>Information was provided on our environmental contribution through products and technology</li> </ul>	○
	3. Preservation of, and reduction of impact on biodiversity <ul style="list-style-type: none"> <li>Forest conservation activities by employees and their families continued in Hyogo, Kochi, and Miyagi prefectures</li> </ul>	○
	1. Establishment of EMS for the KHI Group 1) Formulation and implementation of EMS establishment plan at Japanese and overseas consolidated subsidiaries <ul style="list-style-type: none"> <li>EMS was established at our main consolidated subsidiaries in Japan and overseas</li> </ul> 2) Collection of key environmental data for the whole Group <ul style="list-style-type: none"> <li>An IT-based data collection system was established at domestic affiliated companies</li> <li>Surveys were conducted at overseas affiliated companies to the application situation regarding compliance with laws and regulations and the environmental load</li> </ul>	△
	2. Ensuring compliance with environmental laws and regulations 1) Monitoring of compliance with environmental laws and regulations, etc. 2) Group-wide provision of information on the enactment and revision of environmental laws and regulations	○
	3. Promoting environmental communication 1) Implementation of environmental e-learning, and internal environmental auditor training 2) Provision of environmental information within and beyond the Group (CSR Report, etc.)	○

○ : achieved , △ : partly not achieved, × : not achieved