

Eco-Management—1

Promoting Environmental Management

Hitachi Chemical Group's environmental conservation activities

Hitachi Chemical's environmental conservation activities related to its businesses are guided by the Action Guidelines for Environmental Conservation set forth in 1993 and based on the Standards of Corporate Conduct (see p. 4) as its fundamental philosophy.

We have consistently pursued environmental conservation activities using a concrete action plan formulated each year based on the Hitachi Group's Eco Value Plan 2010 established in 2001.

In 2005, the mid-point of the original plan, we revised the roadmap and formulated the Eco Value Plan 2015, the

goal of which is to develop next-generation products and services through innovative action while cultivating opportunities as a global citizen for the next generation.

Based on this plan, we formulated our own environmental conservation action plan for 2006, comprising the four categories of eco-management, eco-products, eco-factories and joint creation with stakeholders. We will act on this plan to reduce environmental impact and expand the development and sales of eco-friendly products while at the same time continuing to strengthen environmental management and fulfill our social responsibilities as a chemical materials maker.

Hitachi Chemical's Action Guidelines for Environmental Conservation

Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, Hitachi Chemical is committed to meeting its social responsibilities by promoting a globally-applicable "Monozukuri" (designing, manufacturing or repairing of products), which is aimed at reducing the environmental burdens of products throughout their entire life cycles, thereby ensuring environmental conservation.

Please see our website for details.

URL <http://www.hitachi-chem.co.jp/english/csr/environment/guidelines.html>

Hitachi Chemical Group Environmental Conservation Action Plan for Fiscal 2006

Category	Long-term target			FY2005			Target for FY2006
	Indicator	Target value	Target FY	Target value	Results	Rating	
Promotion of environmental management	Hitachi Chemical and Hitachi Chemical Group companies will promote consolidated Group management in their environmental conservation activities. As a chemical material manufacturer, we will also continue activities for reducing impact on the global environment, develop and expand sales of people-friendly, environmentally sound products to strengthen our environmental management, and pursue our social responsibilities.						
Enhancement of environmental management system	Compliance with the Hitachi Group Integrated Environmental Management System	Acquire of ISO 14001:2004 Certification	2006	Compliant	Completed preparation for acquiring certification	○	Certified
	Compliance with ISO 14001:2004 at each individual site	Compliant	2005	Compliant	Compliant	◎	—
Promotion of GREEN 21 activities	Accumulation of green points Evaluation criteria for GREEN 21 Version 3: eco-management (environmental management); eco-mind (awareness), eco-products (green products); eco-products (green procurement); Next products and services strategy; eco-factories (prevention of global warming); eco-factories (resource circulation); collaboration with stakeholders	GREEN 21 Ver. 3 1,280 GP	2010	GREEN 21 Ver. 2 640 GP	687 GP (non-consolidated)	◎	GREEN 21 Ver. 3 768 GP
					647 GP (consolidated)	○	
Promotion of environmental accounting	Establishment and active application of environmental accounting	Active application	—	—	Applied to investment planning	—	Continued application to investment planning
Promotion of environmental education	Strengthening of environmental education	Enhancement of eco-mind (awareness)	—	—	60% participation in eco-mind education (non-consolidated)	○	Improvement in rate of participation in eco-mind education
Expansion of green products	Ratio of green product sales	90% or more	2010	80% or more	84% (non-consolidated)	◎	80% or more
					81% (consolidated)	○	
Enhancement in environmental efficiency of products	Global warming prevention factor (compared to FY2000)	20% or more	2010	—	Experimentally applied to 5 products	—	Apply to more products
	Resource factor (compared to FY2000)	20% or more	2010	—	Experimentally applied to 5 products	—	Apply to more products
Reduction in use of product packaging materials	Volume of packaging materials used (compared to FY2005)	5% reduction	2010	—	Promotion of dedicated containers	—	1% reduction
Control of hazardous chemical substances	Compliance with RoHS ^{*1} Directive (nonuse of hazardous chemical substances (hexavalent chromium, lead, mercury, cadmium, PBB, PBDE))	Full phase-out (products concerned)	June 2006	Full phase-out (products concerned)	Measures underway	△	Full phase-out (products concerned)
	Compliance with REACH ^{*2} regulations	Experimental introduction of emission impact evaluation	2006	—	Drafted exposure risk scenario	—	Drafting of model safety report
		Registration of targeted products	2010	—		—	

*1 Restriction of the use of certain Hazardous Substances in electrical and electronic equipment.

*2 Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals.

Category	Long-term target			FY2005			Target for FY2006							
	Indicator	Target value	Target FY	Target value	Results	Rating								
Eco-products	Promotion of environmental CSR-compliant Monozukuri	Environmental CSR-compliant Monozukuri	Establishment of system	2006	–	Built Monozukuri system	–	Establishment of Group-wide system						
	Sustainable business model	Expansion of new businesses related to environmental conservation activities	Expansion of new businesses	–	–	ROTAS (Please see P. 35), etc.	–	New business development						
Prevention of global warming	CO ₂ emissions (compared to FY1990)	93% or less	2010	77% (non-consolidated) 86% (consolidated)	78% (non-consolidated) 92% (consolidated)	○ △	93% or less							
								CO ₂ unit requirement index (compared to FY1990)	75% or less	2010	81% or less	68% (non-consolidated) 84% (consolidated)	◎ △	80% or less
								Reduction of CO ₂ emissions during transportation (base year: FY2005)	Enhancement in transport efficiency	–	Grasp of transport efficiency	Grasped transport-related environmental impact	○	1% reduction
Eco-factories	Reduction of wastes	Promotion of zero-emission activities	Achieved at all domestic sites	2006	–	Achieved at 29 out of 33 domestic sites	◎	Achieved at all domestic sites						
		Ratio of wastes to landfill	1% or less	2005	1% or less	0.003% (non-consolidated)	◎	–						
						0.1% (consolidated – 33 domestic sites) 3.8% (consolidated)	◎ △							
		Wastes to landfill	Less than 5 tons/year-site	2005	Less than 5 tons/year-site	0.1 ton/year-site (non-consolidated) 2.8 tons/year-site (consolidated - 33 domestic sites)	◎ ◎	–						
						97 tons/year-site (consolidated)	△							
		Amount of waste (compared to FY2000)	80% or less	2010	100% or less	112% (non-consolidated) 104% (consolidated)	△ △	96% or less						
						Recycling ratio	90% or more		2010	85% or more	99% (non-consolidated) 87% (consolidated – 33 domestic sites) 80% (consolidated)	◎ ○ △	86% or more	
Disposal of devices including PCBs	Completion of disposal	2016	Start of disposal	Appropriately stored	△			Start of disposal						
Control of chemical substances	Amount of emissions into the atmosphere (compared to FY2000)	10% or less (non-consolidated) 30% or less (consolidated)	2007	15% or less	23%	△	15% or less							
		30% or less (consolidated)	2007	25% or less	32%	△	30% or less							
		Compliance with VOC regulations	Compliance with density restrictions	2009	–	Research completed	–	Registration of target facilities						
	Establishment of Comprehensive Control System for Chemical Substances	System expansion	–	Start of application	System introduced, functions for the collection, compilation and accumulation of environmental safety information added	◎	Addition of functions to support drafting of MSDS, manifesto							
Joint efforts with stakeholders	Environmental communication	Promotion of communication with stakeholders. Disclosure of information on environmental activities via PR activities, websites, sustainability reports, site reports, etc.												
	Global citizenship activities	Promotion of social contribution activities through active participation in voluntary activities and local voluntary work by employees												

Self-evaluation ◎: Above target ○: On target △: Below target

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Promoting Environmental Management

Environmental management system

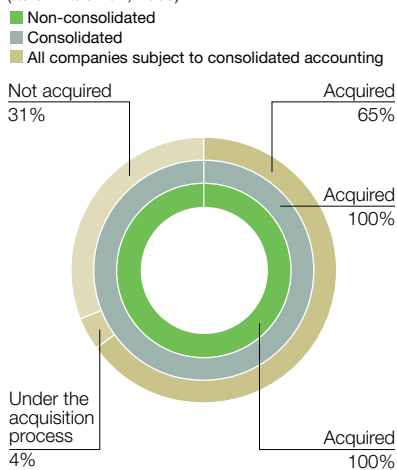
The Hitachi Chemical Group has been a pioneer in environmental management systems and has been actively promoting environmental management and reduced environmental risks.

Major Group companies acquired ISO 14001 certification by 2002. We are continuously enhancing and improving our environmental activities to strengthen Group-wide environmental management through participation in the GREEN 21 program promoted by the Hitachi Group and the disclosure of environmental accounting.

The Across-the-Board CSR Conference chaired by the President and CEO determines environmental activities for the Group. The Committee for Environmental CSR-compliant Monozukuri (designing, manufacturing and repairing products) and other committees are responsible for promoting cross-sectional activities at each works, sales office and Group company.

ISO 14001 acquiring ratio

(as of March 31, 2006)



Chemical substance control system

Comprehensive Control System for Chemical Substances

In 2004, the Hitachi Chemical Group began operation of a Comprehensive Control System for Chemical Substances designed to support the central management of information on chemical substances in compliance with environmental legislation and in response to customer requirements.

The system is a scalable chemical database, consisting of general information on chemical substances and proprietary knowledge, which allows users to search and review the latest information on safety and toxicity, as well as physical and chemical properties and MSDS. This has enabled us to respond quickly to legislative changes and conduct safety evaluations in a shorter period during new product development.

In 2005, we expanded the ability to collect, compile and accumulate information on the environment, safety and health for each site and Group company, and began operations in 2006. To



further enhance the chemical substance control system of the Hitachi Chemical Group, we plan to enhance the system to encompass release and transfer control and support MSDS preparation, green procurement and risk evaluation.

Internal review of new chemical substances

Before using a new chemical substance or whenever ingredients are altered, the Chemical Substance Committee and other related committees discuss the selection and conditions of use based on the MSDS, laws and regulations and toxicity information to prevent the introduction or use of hazardous chemical substances.

We also strive to raise the level of management by announcing laws and regulations as well as the latest information on chemical substances through the Committee for Environmental CSR-compliant Monozukuri, Council of Chemical Substances Safety Management Representatives and chemical substance training sessions.

Environmental auditing

Once every year, Hitachi Chemical Group's major sites undergo an internal audit and an external audit by an ISO 14001 certification body.

Internal auditors are selected from outside the targeted sections and from other sites to ensure an objective and fair audit. Each site takes corrective actions against deficiencies pointed out in the audit to minimize environmental risk and reduce environmental impact.

Environmental management structure

