Environmental Management

■ Environmental Management System

We have established a group-wide environmental management system to efficiently and precisely promote environmental management throughout the Citizen Group. We hold Group Environmental Management Committee meetings twice a year, bringing together environmental managers at 18 domestic Group companies to ascertain progress with activities at each company, review yearly environmental management policies and common issues and make decisions accordingly.

All 27 of our domestic production companies have obtained ISO 14001 certification and promote environmental management activities based on the nature of their respective lines of business.

At our overseas production companies meanwhile, we focus on initiatives that are crucial to manufacturing environmentally-friendly products, including green procurement and chemical substance management, and continue to make steady progress in terms of ISO 14001 certification. We also carry out activities aimed at reducing environmental impact at non-manufacturing companies, based on the nature of each company's operations.

Environmental Auditing and Environmental Education

Our Tokyo and Tokorozawa Works undergo an annual external audit conducted by an ISO assessment organization. We also conduct internal audits twice a year as a rule.

We organize a number of annual environmental education sessions. These include internal environmental auditor training, which is designed to equip internal auditing staff with essential skills, and environmental management and environmental compliance assessment training for members of staff responsible for environmental activities in each department.

We verify the results of environmental education through participant questionnaires and internal audits and provide feedback if necessary.

Environmental Risk Management

Our environmental risk management activities within the Citizen Group cover areas such as compliance with environmental legislation, management of chemical substances contained in our products, waste and recycling governance and measures to combat soil and groundwater contamination. We aim to implement effective measures at all Group companies based on information exchanged via the Group Environmental Management Committee.

We conducted surveys on the usage history of hazardous substances at all of our production bases, both in Japan and overseas, in fiscal 2006 and evaluated measures taken on a five-point scale. We are currently in the process of carrying out voluntary soil and groundwater surveys at sites deemed to be at high risk of contamination. If the relevant surveys reveal evidence of contamination at any of our bases, we will report the matter to the authorities and take steps to remedy the situation as instructed.

Soil Pollution Measures at Citizen Tohoku's Soma Works

An independent inspection confirmed the presence of soil and groundwater pollution on the site of Citizen Tohoku's Soma Works as a result of previously used metal cleaning agents (volatile organic compounds (VOCs)). In December 2009, we voluntarily undertook work to prevent the spread of polluted groundwater to downstream areas. We inserted steel sheet piles to a depth of 6.5 meters, down to the mudstone layer, and installed impermeable walls in three locations, covering a horizontal distance of 45 meters. We also used the EDC method of construction, which involves pouring nutrients between the impermeable walls to stimulate natural decomposition via bioremediation*. This enabled us to carry out remediation in-situ, without stopping the flow of

groundwater completely or excavating and removing the polluted soil. Although subsequent monitoring has confirmed the steady decomposition of the VOCs, we will continue to monitor the remediation effects of our measures on a regular basis and submit regular reports to the authorities

*Bioremediation is a soil remediation technique that uses microorganisms to break down pollutants.



Soil remediation work

Business Activities and Environmental Impact

We accurately ascertain the total input of energy and chemical substances, and total emissions of CO₂ and waste, for the Group and apply this knowledge to well-planned activities to reduce environmental impacts.

Example Initiative

INPUT							
Total energy input (GJ)	Japan	2,098,796					
	Overseas	831,845					
Water resource input (km³)	Japan	1,589					
	Overseas	1,504					
Repeated use of water within the organization (km³)	Japan	521					
	Overseas	11					
Chemical substances input (t)	Japan	520					
	Overseas	2,048					
Containers and packaging	Japan	654					
used (t)	Overseas	804					

Citizen Group's business activities

	OUTPUT					
	CO ₂ emissions (t-CO ₂)	Japan	83,779	BOD emissions (tons)	Japan	34
		Overseas	31,737		Overseas	16
	NOx emissions (t)	Japan	6	COD emissions (tons)	Japan	7
		Overseas	3		Overseas	64
	SOx emissions (t)	Japan	4	Waste generated (tons)	Japan	5,370
		Overseas	4		Overseas	2,276
	Water drainage (km³)	Japan	1,291	Waste land-filled (tons)	Japan	34
		Overseas	1,020		Overseas	1,634

Input and output data does not include environmental impact at the distribution/sales, usage or procurement stages.

Period: April 1, 2009 to March 31, 2010

Scope: 18 domestic companies, 9 overseas companies