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## **Company & Business Overview**

Company Name: Calsonic Kansei Corporation

Headquarters: 2-1917 Nisshin-cho, Kita-ku, Saitama City, Saitama

Established: August 1938

Capital: ¥41.4 billion

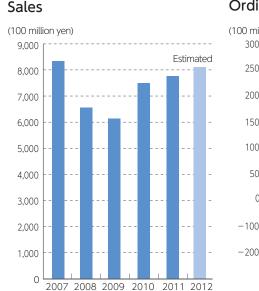
**Consolidated Subsidiaries: 32** 

Affiliates Accounted for Under Equity Method: 15

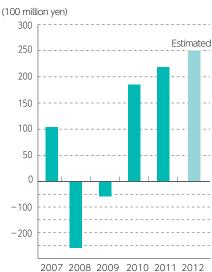
**Stock Exchange Listings:** Tokyo Stock Exchange (1st Section)

**Businesses:** Manufacture and sale of parts for automobiles and industrial vehicles

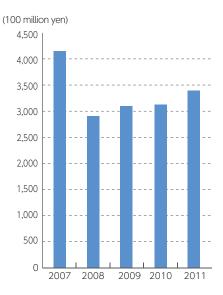
#### Financial Highlights



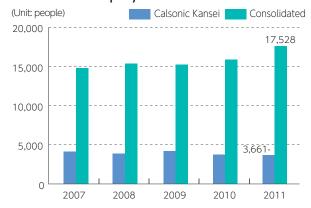
#### Ordinary profit



#### **Total assets**



#### Number of employees



#### Scope of This Report

#### Organization

Calsonic Kansei Corporation, and its domestic and overseas affiliated companies

#### Period

Data in this Report refer to fiscal 2011 (from April 2011 to March 2012), although some activities from fiscal 2012 are also covered.

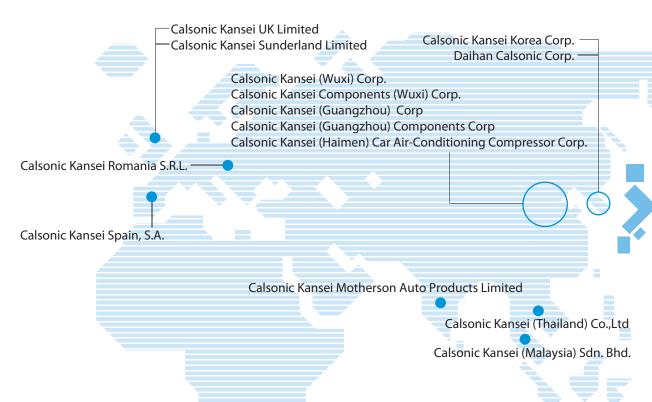
#### Data

Data are based on the companies (wholly-owned and consolidated subsidiaries) included in the Calsonic Kansei Group's Environmental Management System.

#### **Guidelines Referred to:**

Environmental Reporting Guidelines (The Ministry of the Environment) Environmental Accounting Guidelines (The Ministry of the Environment)

#### Calsonic Kansei Group Companies Subject to Consolidated Environmental Management



## **Major Products**

#### **Module Products**

Designing a set of components or systems as a single unit or module can help reduce the number of parts and overall vehicle weight, and improve fuel efficiency. A good example of the benefits of this approach is increased cabin space created by modularizing the cockpit. Calsonic Kansei is a supplier that can provide modules on a global scale. We are striving to be recognized by automakers as their best partner by developing and manufacturing high-quality modules in cooperation with them.



Cockpit Module (CPM)

Front End Module (FEM)

Under the slogan of creating comfortable space that is friendly to both the earth and people, Calsonic Kansei designs and manufactures heaters, coolers, intake blowers and other components needed for air conditioning systems, as well as intake and exhaust systems. Our intake and exhaust systems meet contradictory requirements such as muffling performance, exhaust gas purification performance and engine power performance in a high-level and well-balanced manner.



Air Conditioning System



Exhaust System





Components are the basis of all Calsonic Kansei products. We have always taken on new challenges in technological development toward producing cutting-edge components. We have established a system that enables us to share technologies worldwide and to supply products of uniform quality around the world. We always try to anticipate changing market needs and provide innovative products that meet all the expectations and requirements of our customers.



# 2 Top Commitment

We endeavor to contribute to people around the world by creating a comfortable environment through the interactions of the earth and human beings.



Bunsei Kure President & CEO

In accordance with our new medium-term business plan "CK GX4 T10," we will strive to develop new environmental technologies and products that lead the world.

In June 2011, Calsonic Kansei announced its new medium-term business plan for fiscal years 2011 to 2016, "CK GX4 T10" (CK G-by-four T-ten). Under the Plan, we aim to achieve our goals "T10" by implementing the four key initiatives of our growth strategy, 4Gs-Green, Growth, Global and Great Company. In fiscal 2012, the second year of the Plan, we will make every effort to achieve steady progress, following our roadmap.

#### Green

We will strive to develop innovative environmental technologies and products that lead the world. We aim to lead the industry in the development of next-generation environmentally-friendly products, by creating technological synergy with our total energy management technology at the core.

#### Growth

We aim to capture demand for compact cars and low-priced cars and expand our business in emerging countries by adopting innovative and aggressive marketing strategies, growth-oriented product and technology development strategies, and regional strategies tailored to each region.

#### Global

To achieve true globalization, we strive to develop individuals who can serve as global business leaders and create an organization and corporate culture rich in diversity, through global organizational management, standardization of work processes, and enhancement of manufacturing capabilities.

#### Great Company

To establish a solid foundation that enables us to become a Great Company, we will implement Green, Growth and Global initiatives in a comprehensive manner, thereby achieving the goals set in our medium-term business plan.

1) Develop 10 new innovative eco-friendly products that lead

#### Achieve the goals of CK GX4 T10

- the world.
- 2 Achieve global top 10 status in terms of sales.
- 3 Achieve global top 10 status in terms of operating profit.

Calsonic Kansei operates on the following basic philosophy: "We endeavor to contribute to people around the world by creating a comfortable environment through the interactions of the earth and human beings." To become a truly global company that is trusted by all people around the world, we will not only strive to achieve our mid-term business plan, but also pursue concerted efforts, as a comprehensive automotive parts manufacturer, to promote environmental protection in all aspects of our business activities, from development and design to manufacturing and logistics.



Tsunenari Adachi Executive Vice President & Environmental Officer







#### Corporate Vision

Through "tireless pursuit of quality" and "provision of new value," we will continue to provide the world's best products and services.



#### CK WAY

The heart and performance of each employee are what makes CK powerful and competitive.

—Act with sincerity, and with confidence and pride backed by professionalism—

The practice of each and every employee

**CK WAY Action Items** 

#### Management Guidelines

- ① Seek harmony with the environment and pursue safety. 2 Promote highly transparent management with integrity and fairness.
- 3 Become an organization that can continuously improve by maximizing the individuality and abilities of each member. 4 Lead the market by producing attractive products.

Achieve Mid-Term Business Plan.

Achieve Annual Action Plans. (Companies, Divisions, Groups, Teams)

Achieve Individual Action Plans.

#### Management Philosophy

We endeavor to contribute to people around the world by creating a comfortable environment through the interactions of the earth and human beings.

#### **Environmental Protection Efforts**

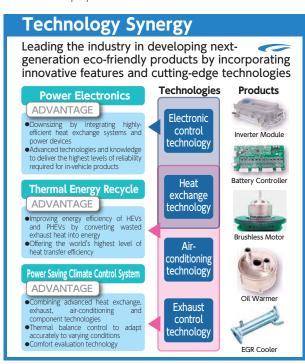
The Calsonic Kansei Group has been undertaking concerted efforts toward achieving the high level targets set out in its mid-term environmental action plan "Calsonic Kansei Group Green Program 2016 (CKGP2016)," established in fiscal 2011.

In response to the power-saving edict issued in the summer of 2011, which required large-lot users served by Tokyo Electric Power Co. and Tohoku Electric Power Co. to reduce electricity consumption by 15% from the previous year during peak weekday hours, our Group companies, the majority of which are located in the Kanto and Tohoku regions, worked together to reduce electricity usage. In spite of significant financial and labor burdens, we vigorously implemented various measures, including the installation of engine compressors and smart meters in all plants, moving production to night shift, and working on weekends. Thanks to these efforts, we achieved a 28% reduction in the Tohoku Electric service area and a 25% reduction in the Tohoku Electric service area, both of which were significantly above the regulatory target of 15%.

We are promoting environmental protection by striking a balance between environmental protection and financial performance, while at the same time encouraging every employee to become more environmentally conscious in their daily work.

#### Environmental Management

As part of efforts to reinforce our environmental management promotion structure, we established the Global Environment Management Meeting in fiscal 2011. In addition to the existing four committees (Product Environmental Committee, Production Engineering Environmental Committee, Environmental Energy Committee, and Environmental Communication Committee), four regional committees for North America, Europe, China and Japan were also established, to ensure that environmental policies and plans are shared and implemented among all Group companies around the world. Furthermore, to promote effective environmental management across the Group, we hold liaison meetings where environmental officers from all Group companies exchange information. In June 2012, the R&D Center of the Headquarters launched activities to obtain ISO 14001 certification, although it was not originally planned to be incorporated into the company's environmental management system. The Center has been working to develop an effective environmental management system that involves all employees.



#### Environmentally Friendly Product Development

We will strive to develop innovative environmental technologies and products that lead the world by implementing Green initiatives identified in our new medium-term business plan.

#### Global Warming Prevention and CO<sub>2</sub> Emissions Reduction In fiscal 2011 was ashipped a 27.7% radiation in gross CO

In fiscal 2011, we achieved a 37.7% reduction in gross CO<sub>2</sub> emissions from domestic plants, against the target of "7% reduction on average in the period from 2008 to 2012, compared to fiscal 1990 levels," set by the Japan Auto Parts Industries Association. We also set and worked to achieve a voluntary target of reducing CO<sub>2</sub> emissions per unit (total emissions/sales) by 28% by fiscal 2011 relative to fiscal 2005 levels. We achieved a 31.9% reduction, significantly exceeding the set target. These successful results were obtained thanks to Monotsukuri Total Cost Reduction (MTCR) activities, as well as Group-wide power-saving activities undertaken under the leadership of power saving teams, which were formed to promote power saving measures in response to the national power-saving edict issued in the summer of 2011.

#### Zero Emissions

As a manufacturer that uses limited resources from the earth as raw materials to produce products, we are committed to the effective use of resources. As part of such efforts, we are implementing zero emissions activities (activities to reduce final disposal of wastes as close to zero as possible) as part of our routine duties. We aim to achieve zero emissions at all Group companies and plants throughout the world. In fiscal 2011, against the target of reducing per-unit waste emissions (valuable resources + wastes) from domestic plants by 2% compared with the previous year, we achieved a 12.7% reduction.

# Social Contribution and Harmonious Coexistence with Local Communities

Calsonic Kansei is committed to contributing to building a better society. In line with this commitment, we strive not only to actively disclose environmental information, but also to closely communicate and engage with our stakeholders, thereby deepening mutual understanding and fostering relationships of trust.

We aim not just to contribute to local communities, but also to achieve harmonious coexistence with local communities through a wide range of activities including local environmental protection. Every Calsonic Kansei Group member is determined to be actively involved in efforts to address environmental problems facing the community, in cooperation with local residents.

#### To Everyone Reading This Report

We regard this Environmental Report as a major communication tool with our stakeholders and the public. However, with the aim of conserving resources, we have discontinued publishing the Environmental Report in printed form, and post information only on our website. We ask for your understanding.

To achieve sustainable corporate development while maintaining harmonious coexistence with society, we place great importance on listening to our customers' needs and comments and addressing issues requiring attention one by one with sincerity.

We hope that readers of this report will gain a better understanding of our environmental policy and activities. To better fulfill our responsibilities to protect the global environment as well as to deepen our communication with all stakeholders, we invite your candid comments and opinions about our activities, for which we thank you most sincerely in advance.

October 2012

# 3 Green Concept

As a corporate group specializing in the production of automotive components, the Calsonic Kansei Group vigorously promotes group-wide environmental protection activities.

#### Environmental Policy (established April 1993)

The Calsonic Kansei Group Environmental Policy establishes a set of basic principles, in accordance with which all Group companies will promote environmental protection, a common challenge for all humankind.

To be trusted by all our stakeholders including customers and society at large, and to contribute to building a sustainable society, we strive to ensure that all Group companies throughout the world share the Policy and act in an environmentally responsible manner in accordance with it.

#### Management Philosophy

We endeavor to contribute to people around the world by creating a comfortable environment through the interactions of the earth and human beings.

#### Management Guidelines

- ①Seek harmony with the environment and pursue safety. ②Promote highly transparent management with integrity and fairness.
- ③Become an organization that can continuously improve by maximizing the individuality and abilities of each member.④Lead the market by producing attractive products.

#### **Environmental Philosophy**

With the aim of creating a pleasant natural environment and contributing to enriching society, Calsonic Kansei strives to protect the global environment by promoting intellectual innovation through technology integration, while at the same time encouraging its employees to always be aware of the basic principle of harmonious coexistence with nature.

#### **Basic Environmental Policy**

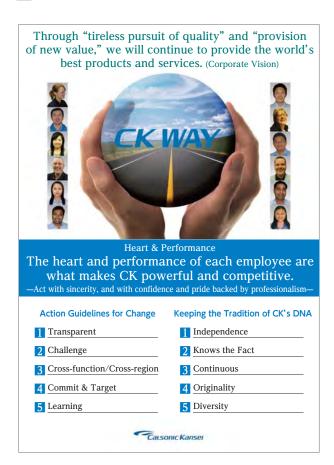
To contribute to building a more prosperous society, we strive to protect the environment at every stage of our business activities.

#### **Environmental Policies**

- ①Establish an organization that promotes environmental protection activities.
- ②Continuously improve and upgrade the environmental management system.
- 3 Comply with all applicable environmental laws and regulations.
- (4) Conduct environmental audits.
- ⑤ Promote resource-and energy-savings, waste reduction and recycling.
- ⑥Reduce and eliminate the use of regulated hazardous substances.
- Develop environmentally friendly products.
- ®Streamline logistics activities.
- ③Implement environmental activities at our operations in Japan and overseas using the same standards in place at our domestic plants.
- (1) Actively disclose environmental information.

#### CK WAY (Action guidelines followed by every employee)

To ensure that our employees act responsibly as members of society, Calsonic Kansei has established the Calsonic Kansei Global Code of Conduct on the basis of its management philosophy. All our employees around the world are expected to follow our Global Code of Conduct.



## **Environmental Management**

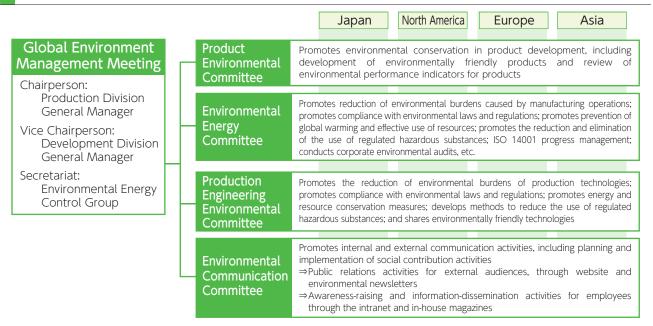
With the aim of improving the global environment, Calsonic Kansei vigorously promotes environmental management throughout the Group worldwide, and encourages all Group employees to be more environmentally aware in the their daily operations.

#### 1 Calsonic Kansei Group Environmental Management Promotion System

To further promote global environmental management, in fiscal 2011 we held the Global Environment Management Meeting, replacing the former Environment Management Meeting.

Under the Global Environment Management Meeting, there are four committees. Each of the four committees develops an activity plan in its respective field, which is then presented to the Global Environment Management Meeting. The Meeting discusses and finalizes the Group's Action Plan based on the plans submitted by the committees. The Meeting also follows up the activities in the priority themes and ensures the effective implementation of the Action Plan. We have a system in place to ensure that all environmental management activities, from target setting to implementation, are executed, monitored and evaluated properly.

#### Organizational Structure and Roles of Each Committee



#### 2 Calsonic Kansei Green Program 2016

We have established a medium-term plan for environmental conservation for fiscal years 2011 to 2016. We will vigorously implement the plan to achieve the following targets.

Calsonic Kansei Green Program (CKGP) 2016									
Item	Target								
item	Classification	Region	Item	FY2011 Plan	FY2011 Results	FY2012 Target	FY2016 Target		
	CO₂ from	Japan	Reduction of CO <sub>2</sub> emissions per unit (total emissions/sales)	2% reduction vs FY2010 (28% reduction vs FY2005)	7.5% reduction vs FY2010 (31.9% reduction vs FY2005)	2% reduction (vs FY2011)	34.7% reduction (vs FY2005)		
CO <sub>2</sub> Emissions	production	N. America, Europe, Asia	Reduction of CO <sub>2</sub> emissions per unit (total emissions/sales)	2% reduction vs FY2010 (3.5% reduction vs FY2005)	5.6% reduction vs FY2010 (7.1% reduction vs FY2005)	2% reduction (vs FY2011)	9.7% reduction (vs FY2005)		
Reduction	CO2 from logistics	Japan	Transportation t-km	1% reduction vs FY2010 (15% reduction vs FY2006)	8.1% reduction vs FY2010 (22.9% reduction vs FY2006)	1% reduction (vs FY2011)	20% reduction (vs FY2006)		
(Reduction of energy use)	CO <sub>2</sub> from offices	Japan	Reduction of CO <sub>2</sub> emissions per unit (total emissions/floor area)	1% reduction vs FY2010	0.2% increase vs FY2010	1% reduction (vs FY2011)	6% reduction (vs FY2010)		
	Total	Global	Reduction of CO <sub>2</sub> emissions per unit	2% reduction vs FY2010	6.5% reduction vs FY2010	2% reduction (vs FY2011)	8.3% reduction (vs FY2010)		
Resource Recycling	Waste (Waste +	Japan	Reduction of waste emissions per unit (total emissions/sales)	2% reduction vs FY2010 (18% reduction vs FY2005)	12.7% reduction vs FY2010 (26.6% reduction vs FY2005)	2% reduction (vs FY2011)	28% reduction (vs FY2005)		
Resource Recycling	valuable resources)	N. America, Europe, Asia	Reduction of waste emissions per unit (total emissions/sales)	1% reduction vs FY2010	1.5% increase vs FY2010	1% reduction (vs FY2011)	6% reduction (vs FY2010)		
Conservation of Water, Air, Soil & Biodiversity	Water use	Japan	Reduction of water use per unit (amount used/sales)	1% reduction vs FY2010 (16% reduction vs FY2009)	15.1% reduction vs FY2010 (28.3% reduction vs FY2009)	1% reduction (vs FY2011)	21.4% reduction (vs FY2009)		
Reduction of water use     Chemical substance management	PRTR	Japan	Reduction of water use per unit (amount used/sales)	1% reduction vs FY2010	15.3% reduction vs FY2010	1% reduction (vs FY2011)	6% reduction (vs FY2010)		

### 2 Environmental Action Plan (Fiscal 2011 Targets and Results)

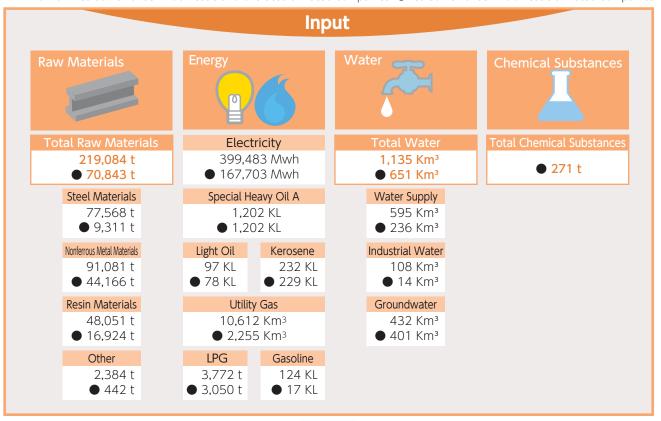
To strengthen group-wide environmental efforts, the Calsonic Kansei Group holds the Global Environment Management Meeting and Environmental Energy Committee Meeting twice a year to exchange information on the implementation status of the Action Plan and achievements.

Priority Issue	Lion Plan and achievemen	Mid-Term Action Plan				
	Promote acquisition and maintenance of ISO 14001 certification for all Group plants and companies in Japan and overseas.					
	Strengthen group-wide global environmental management promotion system.					
	Enhancement of	Purification and prevention of contamination of soil and groundwater				
Environmental Management	environmental risk management	Strict control of wastewater quality				
Promotion	Community partnership activities	Disseminate information on environmental activities undertaken by a production department to earn local communities' trust. Maintain fulfillment rate at 100%.				
	Green partnership activities	Promote three Environmental Clean Chain Activities (CO <sub>2</sub> emissions reduction, effective use of resources, and reduction of substances causing environmental burdens) and prevent occurrence of environmental accidents at a production department.  Enhance green partnership activities in collaboration with cooperating companies.  Maintain fulfillment rate at 100%.				
	CO2 emissions reduction	•Reduction of carbon dioxide (CO <sub>2</sub> ) emissions (Japan Auto Parts Industries Association [JAPIA] Voluntary Environmental Action Plan)  Japan: Reduce CO <sub>2</sub> emissions by 7% and CO <sub>2</sub> emissions per unit by avg. of 20% from 2008 to 2012 (vs FY1990)				
Reduction of	(Reduction of energy use)	•Reduction of carbon dioxide (CO <sub>2</sub> ) emissions (CKGP2016) Reduce CO <sub>2</sub> emissions per unit (total emissions/sales) by the percentages listed below, by FY2016, vs FY2005 Japan: 34.7% reduction North America, Europe & Asia: 9.7% reduction				
environmental burdens of manufacturing activities	Resource recycling  •Reduction of waste emissions (waste and valuable resources) (CKGP2016)  Reduce waste emissions per unit (total amount of waste emitted/sales) by the percentages listed be Japan: 28% reduction vs FY2005  North America, Europe & Asia: 6% reduction vs FY2010					
activities	Conservation of water,	•Reduction of use of environmentally hazardous substances (CKGP2016)  Japan: Reduce environmentally hazardous substance use per unit (total amount of PRTR substances used/sales) by 6% by FY2016, vs FY2010				
	air, soil & biodiversity	•Reduction of water use (CKGP2016)  Japan: Reduce waster use per unit (total amount of water used/sales) by 21.4% by FY2016, vs FY2009				
		Compliance with laws and regulations, as well as customer requirements, and reduction and elimination of use of regulated chemical substances (European ELV Directive: lead-based soldering in electrical applications, abolished at the end of December 2010) (Compliance with European REACH regulations)				
	Enhancement of efforts	Reduction of waste (development of easily recyclable products)				
Development of Environment- Conscious Products	to develop products that address environmental issues	Prevention of global warming (fuel efficiency/energy efficiency)				
		Prevention of air pollution (purification of exhaust gas)				
		Noise prevention (reduction of noise emissions)				
	Evaluation of environmentally friendly products					
Green Procurement	Expansion of green procur	ement				
Environmental Communication	Active disclosure of inform	ation on environmental activities				

FY2011 Target(s)	FY2011 Result(s)	Page
Improve quality of ISO 14001 activities.	Conducted CK environmental performance audits for all certified domestic sites.	12
Enhance CK Group Environmental Management Promotion System.	Strengthened Calsonic Kansei Environment Management Meeting. Improved emergency contact network in case of environmental accidents within Calsonic Kansei Group (Horizontal deployment rate: 100%)	8
Continue and expand soil and groundwater conservation efforts.	Took remedial measures for soil or groundwater contamination that had occurred, as well as preventive measures to prevent future occurrence of soil/groundwater contamination.	
Manage wastewater quality and exhaust gas emitted from our plants, by setting voluntary targets at 80% of regulation values.	Achieved our voluntary target values	23
Fulfillment rate of community partnership activities (actual assessment points/standard assessment points): 100%	Achieved fulfillment rate of 100%.  Conducted cleaning of areas around business sites.  Accepted visitors for plant tours, and dispatched instructors for social education programs.  Accepted local elementary, and junior and senior high students for internship programs.	32
Fulfillment rate of green partnership activities (actual assessment points/standard assessment points): 100%	Achieved fulfillment rate of 100%.  Conducted emergency response training for cooperating companies.  Held training sessions on prevention of environmental accidents.	
Japan: Reduce CO <sub>2</sub> emissions by 7.35% and CO <sub>2</sub> emissions per unit by 21%, vs FY1990	CO <sub>2</sub> emissions: 37.7% reduction CO <sub>2</sub> emissions per unit: 58.1% reduction	
Reduction of CO <sub>2</sub> emissions per unit Japan: 2% reduction vs FY2010 (28% reduction vs FY2005) North America, Europe & Asia: 2% reduction vs FY2010 (3.5% reduction vs FY2005)	Japan: 7.5% reduction vs FY2010 (31.9% reduction vs FY2005) North America, Europe & Asia: 5.6% reduction vs FY2010 (7.1% reduction vs FY2005)	24~28
Reduction of waste emissions per unit Japan: 2% reduction vs FY2010 (18% reduction vs FY2005) North America, Europe & Asia: 1% reduction vs FY2010	Japan: 12.7% reduction vs FY2010 (26.6% reduction vs FY2005) North America, Europe & Asia: 1.5% increase vs FY2010	
Japan: 1% reduction of environmentally hazardous substance use per unit, vs FY2010	Japan: 15.3% reduction vs FY2010	22
Japan: 1% reduction of water use per unit vs FY2010 (16% reduction vs FY2009)	Japan: 15.1% reduction vs FY2010 (28.3% reduction vs FY2009)	28
Reduce VOCs in vehicle cabin interiors. Promote the use of lead-free solder. Ensure compliance with European REACH Regulations.	Continued efforts to reduce VOCs in vehicle cabin interiors. Used lead-free solder for some models. Implemented activities to comply with European REACH Regulations.	20~21
Disclose materials data to customers promptly.	Responded effectively to customer instructions (via IMDS).	
Promote the development of easily recyclable products.	Front-end modules, cockpit modules, seamless hard instrument panels, paint-less instrument panels	
Promote light-weight, fuel efficient/energy efficient products.	Front-end and cockpit modules; small, high performance air-conditioning systems; variable capacity compressors for air-conditioners; steering members; printed circuit board harnesses, built-in oil coolers, EV inverters, EV battery controllers, lightweight radiators, charge air coolers	15~19
Promote development of products that ensure effective purification of exhaust gas.	New-structure metal supports Urea aqueous tank, DPF	13 - 19
Promote development of products with low noise emissions	Low noise exhaust system	
Promote the development of environmentally friendly products. Promote the creation of a database for relevant indicators.	Disseminated information on indicators for environmentally friendly products to employees, and started using the indicators. Promoted the development of a system for calculating $CO_2$ emissions in the production stage	
Enhance Green Procurement Guidelines.	Promoted activities to encourage business partners to agree to and follow our Green Purchase Guidelines.	23
Enhance Environmental Report.	Disseminated information on Calsonic Kansei's environmental activities and achievements widely to the public, through Environmental Report.	
Enhance information dissemination activities for external audiences.	Improved the "Environmental Information" section on our website. Communicated our environmental activities to our shareholders through Mid-Term Reports.	30~32

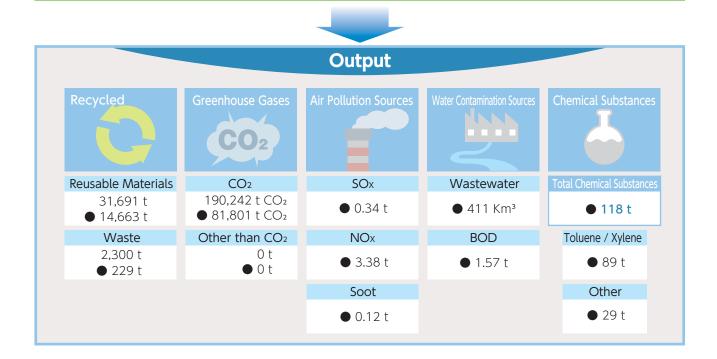
#### 4 Business Activities and Environmental Burden ⇒ Mass Balance

No mark: Calsonic Kansei + domestic and overseas affiliated companies ●: Calsonic Kansei + domestic affiliated companies





## Calsonic Kansei Affiliated Group **Press**



#### 5 Establishing an ISO 14001 Environmental Management System

#### Promoting the Acquisition of ISO 14001 Certification

- OSince 1998 the Calsonic Kansei Group has been promoting the acquisition of ISO 14001, an international standard for environmental management systems. All Calsonic Kansei plants, the Testing Research Center, and domestic and overseas affiliated production companies (except those newly established) have been certified. The Group is promoting high standards of environmental management on a global scale.
- OWith the aim of acquiring ISO 14001 certification by May 2013, the R&D Center of the Headquarters is working to establish an environmental management system and conducting education and training to help employees understand ISO 14001.

#### Acquisition Status of Calsonic Kansei Facilities

	Plant	Month/Year first certified
Japan	Gunma Plant	October 1998
	Kodama Plant	January 1999
	Oppama Plant	February 1999
	Yoshimi Plant	December 2001
	Testing Research Center	January 2003
	R&D Center, Headquarters	May 2013 (planned)

#### J (pidiffica)

Ac	Acquisition Status of Major Domestic Affiliated Companies						
	Company	Month/Year first certified					
	Calsonic Kansei Iwate Corporation	June 1998					
	CKK Corporation	March 1999					
Ja	Calsonic Kansei Utsunomiya Corporation	May 1999					
Japan	CKF Corporation	December 1999					
	Tokyo Radiator Mtg. Co., Ltd.	March 2003					
	CKP Corporation	March 2004					
	Calsonic Kansei Yamagata Corporation	December 2012 (planned)					

#### Acquisition Status of Major Overseas Affiliated Companies

Z	Company	Month/Year first certified
North	Calsonic Kansei North America, Inc., Shelbyville Plant	September 2001
America	Calsonic Kansei North America, Inc., Lewisburg Plant	September 2002
	Calsonic Kansei Mexicana, S.A. de C.V., Aguascalientes Plant	March 2005
	Calsonic Kansei Mexicana, S.A. de C.V., San Francisco Plant	March 2005
	Calsonic Kansei Sunderland Limited	September 1999
Europe	Calsonic Kansei UK Limited, Washington Plant	October 1999
	Calsonic Kansei UK Limited, Llanelli Plant	January 2002
	Calsonic Kansei Spain, S.A.	February 2000
	Calsonic Kansei Romania S.R.L.	November 2008
	Daihan Calsonic Corp.	April 2004
	Calsonic Kansei Korea Corp.	October 2004
	Calsonic Kansei Malaysia Sdn. Bhd.	August 2007
	Calsonic Kansei (Wuxi) Corp.	August 2007
Asia	Calsonic Kansei (Wuxi) Components Corp.	November 2008
	Calsonic Kansei (Guangzhou) Components Corp.	January 2009
	Calsonic Kansei (Haimen) Corp.	Under consideration
	Calsonic Kansei (Thailand) Co., Ltd.	August 2011
	Calsonic Kansei Motherson Auto Products Limited.	Under consideration

#### Continuous Improvement of Environmental Management System (EMS)

As part of our efforts to continuously improve our environmental management system, we are working to increase the number of internal auditors at each business site. We also conduct internal and external environmental audits on a regular basis; internal audits are carried out under the leadership of the Environmental Energy Control Group of the Headquarters, and external audits are conducted by external agencies.

#### Calsonic Kansei (Thailand) Co., Ltd. Acquires ISO 14001 Certification

#### Activities to develop an EMS





#### Internal auditor training





# 5

## **Environmental Accounting**

The Calsonic Kansei Group has introduced environmental accounting as a tool for quantitative evaluation of environmental activities and official announcements.

Environmental accounting is a means of publicizing and quantitatively summing up the economic advantages accompanying environmental conservation measures, as well as the benefits and costs of environmental conservation and related activities, and what we publicize in the environmental report fulfills our commitment to explain our business activities to our various stakeholders.

Establishing a quantitative evaluation summary is helpful for enhancing our sustainable business management practices.

Those benefits are summed up quantitatively, and announced to society in the form of environmental accounting through environmental reports. Evaluation of quantitatively calculated results can also assist our environmental management practices.

#### 1 Goals of Environmental Accounting for the Calsonic Kansei Group

1

By actively disclosing quantitative measurement results to local citizens, stockholders, and society in general, we aim to boost the transparency of the environmental activities of our company and help all parties gain an understanding of our corporate stance on the environment.

2

We use the quantification of both costs and amounts that arise from corporate involvement in environmental activities as a means of making further decisions pertaining to the effective promotion of future environmental activities.

3

In order to improve the consciousness of our employees, we have implemented a system that raises environmental awareness, focuses on this awareness, and develops it further—all through everyday workplace interaction.

#### 2 Status of FY 2011

#### **Environmental Conservation Costs**

Environmental conservation costs are the investment and expenditures related to our environmental activities measured in monetary units.

(Unit: Million yen)

Environmental Conservation Costs									
	lassification	1	nvestment	s	Expenditures				
C	tassification	FY 2010	FY 2011	Rise and fall	FY 2010	FY 2011	Rise and fall		
1. Costs within each business area for reduction of the environmental burden			167	35	686	628	△58		
Pollution prevention costs	Prevention of air, water, soil and noise pollution	54	86	32	241	241	0		
Environmental conservation costs	Energy savings, resource savings, costs of phasing out materials with high environmental burdens	63	81	18	129	57	△72		
Resource recycling costs	Costs for reduction of industrial waste, recycling, and disposal	15	0	△15	316	330	14		
2. Upstream/downstream costs		0	0	0	129	127	△2		
3. Management activity costs	Human resource costs incurred for environmental policy organizations, and the establishment, operation and certification of environmental management structures.	7	0	△7	164	159	△5		
4. Environmental research and development costs	Costs for development of environmentally friendly products, and research and development related to reducing environmental burdens	366	310	△56	3,185	3,758	573		
5. Social activities costs	Costs for supporting environmental conservation activities conducted by local citizens and groups	0	0	0	3	2	△1		
6. Environmental damage treatment costs  Costs for restoration of the natural environment and compensation for environmental damage		2	0	△2	1,094	34	△1,060		
	Total	507	477	△30	5,261	4,708	△553		

<sup>\*1.</sup> Development costs in the Prior Art Development Department were increased.

<sup>\*2. 1,094</sup> million yen was mainly used for Great East Japan Earthquake-related restoration and repayment of debt related to the removal of assets after the closure of the Atsugi Plant.

#### **Environmental Conservation Effects**

Environmental conservation effects are assessed both from the economic aspect, which is evaluated based on the amount of money, and the quantitative aspect, which is evaluated based on the reduction in substances causing environmental burdens.

Evaluation of Quant	Evaluation of Quantitative Effects of Environmental Conservation Policies							
	Effects	FY 2010	FY 2011	Effects				
1. Environmental conservation e	effects related to resources used in business operations (quantity)							
Total energy use after conversion to CO <sub>2</sub> (t)		202,719	202,511	208				
	Water consumption (km³)	1,293	1,250	43				
2. Environmental conservation ef	2. Environmental conservation effects related to waste discharged in business operations (quantity)							
	Total amount of waste (t)	34,127	34,373	△246				
	Amount recycled (t)		31,820	416				
	Amount disposed (landfilled) (t)		2,553	△622				
	PRTR substances (quantity discharged/moved) (t)	124	118	6				

<sup>\*</sup> CO<sub>2</sub> emissions were reduced through electricity-saving activities in Japan and energy-saving activities in each region of North America, Europe and Asia, although the increased production volume also increased CO<sub>2</sub> emissions to some extent.

#### **Economic effects of Environmental Conservation Policies**

The economic effects are reported as the sum of the cutbacks in expenditures related to environmental activities (substantial results from energy saving activities etc.) and the income related to environmentally friendly activities (income from selling valuable resources etc.)

(Unit: Million yen)

	FY 2010	FY 2011	Effects	
3. Economic effects of env	12,102	13,359	1,257	
	Reduced costs through energy saving  Reduced costs related to water use		140	△1
			3	△1
	Income from selling valuable resources	971	1,016	45
	Proceeds from selling environmentally friendly products	10,986	12,200	1,214

#### Basic Items

Special notes: Since overseas affiliates were included in the statistics from FY2011, the data for FY 2010 were changed to include those overseas affiliates in the same manner.

1. Target Period: FY 2010 (April 2010 to March 2011) FY 2011 (April 2011 to March 2012)

#### 2. Scope of Statistics:

Calsonic Kansei Corporation Gunma Plant, Oppama plant, Yoshimi Plant, Kodama plant, Experiment Study Center, R&D Center•Headquarters

#### Domestic affiliated companies

CKK Corporation
CKF Corporation
CKP Corporation
Calsonic Kansei Utsunomiya Corporation
Calsonic Kansei Iwate Corporation

Calsonic Kansei Iwate Corporation Calsonic Kansei Yamagata Corporation Tokyo Radiator Mfg Co., Ltd.

#### Overseas Affiliates

North America: Calsonic Kansei North America Inc. Calsonic Kansei Mexicana, S.A. de C.V. Europe: Calsonic Kansei UK Limited Calsonic Kansei Sunderland Limited Calsonic Kansei Spain, S.A.

Calsonic Kansei Spain, S.A. Calsonic Kansei Romania S.R.L.

Asia: Daihan Calsonic Corp.
Calsonic Kansei Korea Corp.
Calsonic Kansei affiliates in China
Calsonic Kansei Thailand Co., Ltd.
Calsonic Kansei Malaysia Sdn. Bhd.
Calsonic Kansei Motherson Auto Products Limited

3. Statistical methods: Basically, we calculate costs in compliance with the guidelines issued by the Ministry of the Environment as a reference.

# 6

## **Environmentally Friendly Product Development**

Calsonic Kansei set a "Green" target in its new midterm business plan announced in June 2011. This means that we aim to lead this industry by creating environmental technologies/products of the next generation that can lead the world.

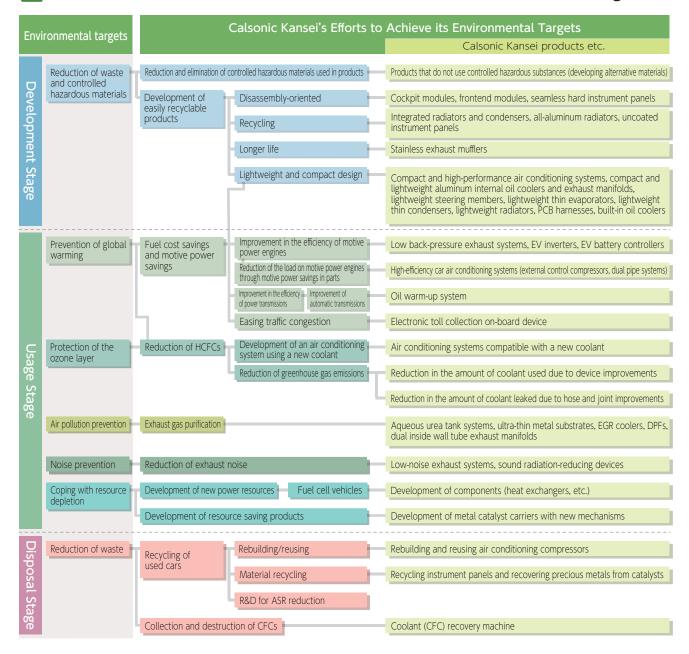
Calsonic Kansei is developing products that can reduce environmental impact throughout their entire life cycles with the concept "We develop environmentally friendly products".

When developing environmentally friendly products, we adhere to the requirements of fuel/motive energy efficiency, compact/lightweight design, simplification of recycling processes, elimination/minimization of hazardous substances, etc. To adapt products to these requirements, it is necessary to consider these issues from the first stage of development.

We are promoting the development of products for electric cars, which are the most environmentally friendly motor vehicles on the market.

Calsonic Kansei is promoting the development of environmentally friendly products by assessing the environmental aspect, in addition to assessing quality, cost, delivery and patent issues.

#### 1 Calsonic Kansei's Efforts and Products to Achieve its Environmental Targets



#### 2 Total Reduction of Environmental Burden by Modularization



#### Frontend Module

The parts in the frontend, such as the radiator, condenser, and various other heat exchangers, are integrated with the core support radiator to act as a support column. We are promoting space-saving and improving the assemblability and disassemblability of vehicles.

Reduction in the number of parts 35%~50%

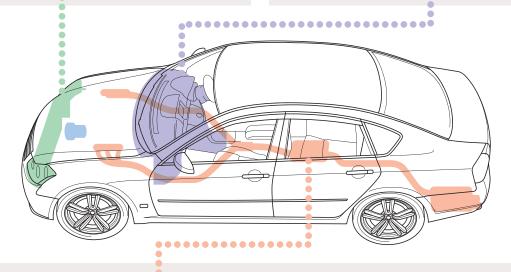
Reduction in weight 5%~20%



#### Cockpit Module

The instrument panel, meters, air conditioning unit, airbag, electronic control unit, etc. are combined together with the steering member to form the frame. The keywords for our development work are "lightweight" and "recyclability."

Reduction in the number of part connection points	35%
Reduction in the number of parts	18%
Reduction in weight	5%



#### **Engine Exhaust Module**

We are developing systems for the exhaust manifold, catalytic converter, center muffler, rear muffler, finisher, etc. which are highly suitable for exhaust gas purification.



#### 3 Prevention of Global Warming

We contribute to the improvement of the energy efficiency of vehicles by developing compact and lightweight fuel cost-saving/motive power-saving products. Our weight-saving efforts in particular can be seen in many of our products.

Promoting Compact and Lightweight Vehicle Parts

# 12mm-thick radiator Reduction in weight





Development of Fuel Cost-/Motive Power-/Electric Power-Saving Products

#### 64mm-thick charge air cooler

The resistance of charge air was reduced by 30% (compared with our conventional products). The heat resistance was improved for fuel cost saving and to respond to regulations for exhaust gases from diesel cars.



#### Compressors for Car Air Conditioning

Calsonic Kansei contributes to the environment through fuel cost/motive power saving and reduction of CO2 by offering variable capacity swash plate-type compressors which enable power saving due to continuous variability, as well as fixed capacity vane rotary compressors which realize compact and lightweight design due to their simple shape. In addition, we are promoting the development of compressors for EVs (electric vehicles).





#### Inverter and Battery Controller for EVs

The inverter features highly efficient control and quick response performance. The battery controller is a device that monitors and controls the state of lithium-ion batteries.





#### Development of Energy-saving Injection Molding Technology

- ◆Excellent heat efficiency for manufacturing with less CO₂ emission (58% reduction in powder molding ratio)
- ◆Excellent material yield ratio with less production of waste material (2.7 times in vacuum forming ratio)



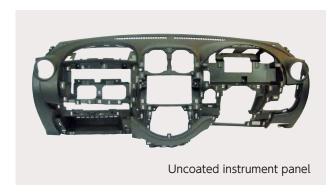
#### Development of Alternative Technology

#### Development of Alternative Refrigerant Air Conditioning Systems

Refrigerants currently used for car air conditioners have caused some concerns with regard to their impact on global warming. We now are developing air conditioning systems that use alternative refrigerants with a very low global warming coefficient.

#### 4 Effective Use of the Earth's Resources

Calsonic Kansei strives to develop products with better disassemblability/recyclability by reducing the number of kinds of materials used, and those which need fewer new resources.



#### 5 Prevention of Air Pollution/Purification of Vehicle Exhaust Gases

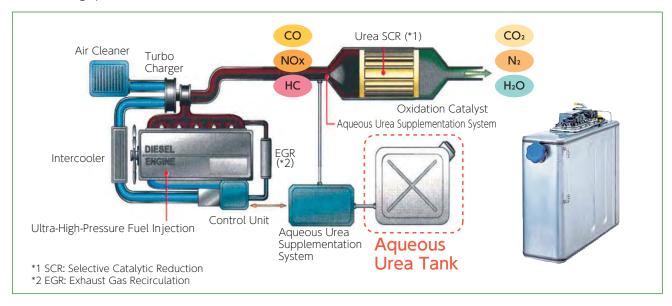
#### Aqueous Urea Tank - Urea SCR System

The nitrogen oxide (NOx) present in exhaust gases is produced during combustion at high temperatures. By combining this NOx with aqueous urea it can be broken down into harmless water and nitrogen. The urea SCR system utilizes this mechanism to inject aqueous urea during catalysis, greatly reducing the amount of NOx produced.

The aqueous urea tank is an important component that supports the urea SCR system.

As the tank is made from stainless steel, it has excellent rustproof properties and, along with the EGR cooler, intercooler and the aluminum fuel tank, this environmentally friendly product has been developed to meet the various needs of our customers.

This is the first time anywhere in the world that an aqueous urea tank has been mass-produced for vehicle installation. It is also highly durable and corrosion resistant.



#### 6 Noise Prevention - Reducing Exhaust Noise in Exhaust Parts

By analyzing the silencing elements using elemental technology, and then combining the various elements, we are developing exhaust parts with high levels of silencing performance.



#### 7 LCA Efforts (Product Environmental Impact Evaluation)

We believe that by quantitatively evaluating and understanding the environmental impact of products, we will be able to implement suitable environmental measures by assessing the appropriateness of product plans, determining whether developmental plans are required or not, and setting priorities for environment-conscious matters during the product design, development and manufacturing processes.

We have already calculated the internal environmental burden per unit for each of the products we make at our manufacturing plants, and we have entered this information into databases as LCA data for self-manufactured products. LCA data are also calculated for selected target vehicle types.

In 2006, we started the "Product Environmental Indicator WG" to assess methods for evaluating the environmental aspect of products during the product development process by reviewing the usage of LCA indicators, for example, and utilizing the results. In 2007, we built a CO<sub>2</sub> emissions-computing system to calculate the CO<sub>2</sub> emission amounts generated during the manufacturing process for each of our products.

# 7

## Efforts to Manage Chemical Substances

Substances that could impact the environment are used in some products, and for the manufacture of items designed to improve the quality of these products. Therefore, there are concerns that these substances could have a significant impact on the environment during the manufacture and use of these products and also when they are discarded.

Global awareness of the environment is now increasing and more requests to reduce/stop using these substances are coming in every year, both from home and abroad.

In response, we are promoting the responsible management of chemical substances (environmentally hazardous substances) by adhering to the laws and regulations of each country and by responding promptly to our customers' requests.

#### 1 Basic Concepts

To achieve responsible risk management for "products", "manufacturing process", "purchased materials" and "processed materials", we adhere to the following fundamental principles: "Use as few harmful chemicals as possible", "eliminate as many harmful substances as possible and change to alternatives" and "properly manage harmful chemicals if they have to be used."



#### 2 Environmentally Hazardous Substances in Products

#### Reducing the Amounts of Environmentally Hazardous Substances Used in Products

Calsonic Kansei doesn't just comply with the legal restrictions of each country. They also set their own goals, manage and use follow-up systems, promote the development of alternative technologies, and work towards reducing the amounts of environmentally hazardous substances used in their products.

#### Efforts by Calsonic Kansei to Comply with Regulations

Legislation				Calsonic Kansei's Efforts						
Regulations	Substances	Regulatory Schedule	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	
European	Four substances (lead, cadmium, mercury, hexavalent chromium)	Prohibited from July 2003	Compliar Except for som	ce comple ne exemptions	ted					
ELV Directive	Hexavalent chromium, corrosion coating	Prohibited from July 2007	Compliance completed							
6 16 1 11	Reducing/abolishing substances found in	The a	adoption pi	rocess star	ted in the s	econd half	of 2006			
Self-regulations	Applying a Pb-free solder		Curre	ently worki	ng towards	adoption				
European REACH Regulations SVHC*				ive June 1 rently unde	rway					

<sup>\*:</sup> SVHC stands for "Substance of Very High Concern" and is scheduled to include about 1,500 specific items, such as carcinogenic substances.

#### Efforts Directed Towards Reducing VOC Levels in Vehicle Interiors

Calsonic Kansei has set goals aimed at reducing and abolishing 13 volatile organic compounds (VOC) such as formaldehyde, toluene and xylene, which are included in the adhesives and coating materials used in car interior products and can cause irritation to the nose and throat. We have set a target for their elimination and a reduction in usage of related materials and coatings, and are now expanding the list of target materials used for these sorts of application

#### Materials

- ①Using materials that do not contain formaldehyde
- ②Using adhesives that contain less toluene and xylene

#### Coatings

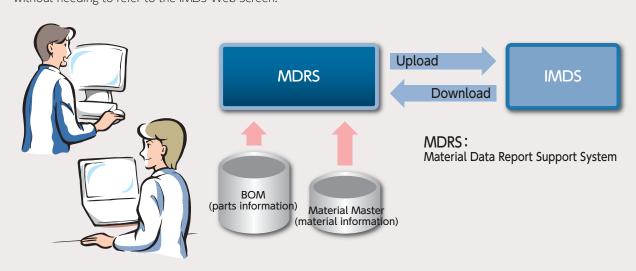
- ①Developing/using coatings that contain less toluene and xylene (TX-free coatings)
- ②Developing water-based coatings containing only a small amount of solvent

#### Immediate Disclosure of the Amount of Environmentally Hazardous Substances Used in Products

Almost all automobile makers now require suppliers, including Calsonic Kansei, to refrain from using prohibited substances and to report the materials and substances used in products through IMDS.

To comply with this request, we have developed and formulated an IMDS entry support system called "Calsonic Kansei MDRS" to promote the prompt disclosure of information to customers.

In this system, the parts list is read and connected to the material information database of the material master. The data are then uploaded to the IMDS from the server. This system allows the entry operator to easily compile data without needing to refer to the IMDS Web Screen.



#### 3 Environmental Efforts at Plants

#### Reducing Emissions of Volatile Organic Compounds (VOC) from Plants into the Air.

Domestic

We are conducting environmental compliance evaluations at each of our bases. In addition, in order to comply with the VOC emission regulations, we have installed thinner collection devices at plants that are subject to control. As a result, our plants continue to operate without violating any regulations.

Overseas

At each of our overseas bases, we are changing over to the use of low-toluene and low-xylene paints.

#### Support for PRTR Legislation (Calsonic Kansei + Domestic affiliated companies)

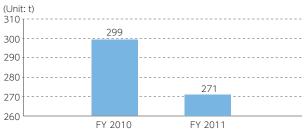
In order to confirm the amounts of PRTR-regulated substances discharged, moved and used, and to reduce the environmental burden, we are reducing the amounts of PRTR-regulated substances used by changing coating materials and setting the goal of a 6% reduction in emissions per unit by FY 2016, compared with FY 2010.

\*PRTR (Pollutant Release & Transfer Register, (Act on the Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment, published in 1999)

# Target for FY 2011 Compared with FY 2010 Amount of Emissions per Unit 1 % reduction



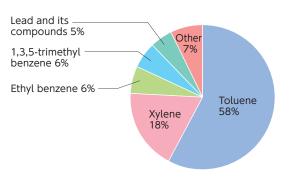
#### Amount Used



#### Amount Discharged/Moved



#### Amount Discharged and Moved in FY 2011 (Total: 118 t)



#### Management of PCB

Appropriate management regulations have been implemented for electrical devices that include PCBs as waste products for special management in accordance with the law. PCBs are also scheduled for prompt disposal, which has already started at some bases.

#### Thorough Water Quality Management

We have set our voluntary management targets (80% of the regulatory value) and are conducting stricter management than the law requires.

#### Thorough Air Quality Management

We have finished switching from Heavy Oil A fuel to Special Heavy Oil A fuel (containing only 10% of the sulfur content of Heavy Oil A). We can reduce sulfur oxide (SOx) and CO<sub>2</sub> consumption by converting to natural gas and LPG for combustion and reduce the amount used by adopting energy-saving activities.

#### **Environmental Contamination Accidents or Grievances**

Rules for collecting data on overseas environmental accidents were established in FY 2011 in order to manage them as quickly as possible.

Although 6 environmental accidents with the potential to affect the environment at large occurred in FY 2011, our quick responses were able to minimize the damage.

After each accident, the situation was rapidly assessed and the causes were investigated in order to cope with the situation. (A report has already been submitted to the government.)

Base	Content
Calsonic Kansei Iwate Corporation	Outflow of water-soluble oil waste
Calsonic Kansei North America Inc.	Abnormal pH Outflow of antifreeze solutions
Calsonic Kansei (Malaysia) Sdn. Bhd.	Outflow of water-soluble oil waste (3 cases)

#### Efforts to Clean up Soil Ground Water and Prevent Contamination

We are addressing the current situation by focusing efforts on plants which have already been contaminated and we are implementing preventive measures and conducting thorough investigations.

#### 1. Efforts Underway at Plants with Existing Contamination

We have also taken measures at the Atsugi Plant that was closed in September 2010 by complying with the relevant laws and regulations.

#### 2. Efforts for Advanced Prevention

- ⊚Switching from subterranean fuel management to above ground management⇒Completed.
- ©Converting from Special Heavy Oil A to Natural Gas and LPG (including CO<sub>2</sub> reductions)

#### 3. Thorough Surveying

We have already conducted investigations on the soil in each area, including affiliated companies.

We are also conducting an investigation of affiliated company groups.

#### 4 Efforts to Reduce the Amounts of Environmentally Hazardous Substances in Purchased Items

#### Promotion of Green Procurement

Calsonic Kansei procures various items such as raw materials, indirect materials and component parts and believes that managing all procured items is an important part of the responsible management of environmentally hazardous substances.

We ask for our suppliers' cooperation in following the Green Procurement Guidelines that were created in order to comply with the relevant laws and regulations and to accommodate customers' requests. This enables us to continue promoting Green Procurement with our suppliers in order to fulfill our social responsibilities.

#### Operation for Green Procurement

The "Calsonic Kansei Green Procurement Guidelines" set out legislation stipulating the substances that are to be managed, how to conduct survey reports on chemical substances included in items we have purchased, and evaluations of the environmental management system status of our suppliers.

#### 1. Environmental Efforts for Purchased Items (Materials, Parts, Products, Indirect Materials and Packaging Materials)

- ©We conduct surveys of the substances included in purchased items (materials, parts, products and packaging materials).
- @We confirm that any chemical substances included in purchased items (materials, parts, products and packaging materials) comply with the requirements by using IMDS, MSDS, etc.

#### 2. Investigation for the Establishment of Environmental Management Systems

- ①Accreditation for an environmental management system such as ISO 14001 has been acquired.
- ②Accreditation for an environmental management system such as ISO 14001 is being promoted, and a clear plan with a concrete schedule for acquisition has been established.
- 3 Equivalent activities to either of the above are ongoing.

# 8 Efforts Towards an Environmentally Balanced Factory

The Calsonic Kansei Group is quantitatively evaluating the environmental burden output resulting from its industrial operations, and striving to reduce this burden by gaining a comprehensive understanding of the impact of all operations.

From the viewpoint of global warming, we promote reduced carbon emissions and reduced emissions per unit and, from the viewpoint of the effective use of resources, we promote 100% reuse of those resources - creating zero waste so that our factories can operate in balance with the environment.

Furthermore, our concerted efforts and achievements regarding the "Electric Power Usage Restriction Ordinance" adopted in the summer of 2011, which set various restraints in place, greatly surpassed the original targets and promoted our energy management goals.

#### 1 Prevention of Global Warming

In FY 2011, we established the "Calsonic Kansei Green Program 2016" midterm environmental plan and we are now promoting various activities to reach the FY 2016 goal.

#### Transition of CO<sub>2</sub> Emissions from FY 1990 to FY 2011 (Calsonic Kansei + CKK + CKF)

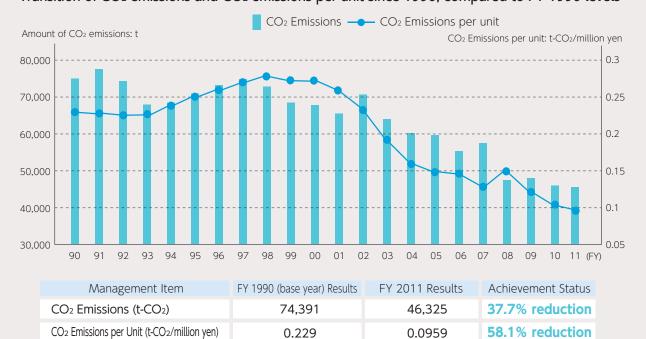
#### 1. CO<sub>2</sub> Reduction Plan

We are targeting an average reduction of 7% in CO<sub>2</sub> emissions and 20% in CO<sub>2</sub> emissions per unit from 2008 to 2012 (Environmental Self-Action Plan of the Japan Auto Parts Industries Association), in comparison with FY 1990 levels.

#### 2. CO<sub>2</sub> Reduction Achievements

 $CO_2$  emissions were reduced by 37.7% and  $CO_2$  emissions per unit were reduced by 58.1% in FY 2011, compared to FY 1990 levels.

#### Transition of CO<sub>2</sub> emissions and CO<sub>2</sub> emissions per unit since 1990, compared to FY 1990 levels



(0.33 was used as the  $CO_2$  conversion factor for electricity in comparison with FY 1990)

#### Overview of Activities until FY 2011 (Calsonic Kansei + Domestic Affiliated Companies)

#### We are aiming to reduce the amount of CO<sub>2</sub> emissions per unit by 34.7% by FY 2016, compared to FY 2005

In order to achieve the goal described above, we targeted a 2% reduction in FY 2011, compared to FY 2010. As a result, a 7.5% reduction in CO<sub>2</sub> emissions per unit and a 1.1% reduction in CO<sub>2</sub> emissions were achieved.

	EV 200E			Achievement Status		
Management Item	FY 2005 (base year) Results	FY 2010 Results	Y 2010 Results FY 2011 Results	001110011001	Compared with the Previous Year	
CO <sub>2</sub> Emissions (t-CO <sub>2</sub> )	103,183	82,710	81,801	20.7% Reduction	1.1% Reduction	
CO <sub>2</sub> Emissions per Unit (t-CO <sub>2</sub> /million yen)	0.2173	0.1600	0.1480	31.9% Reduction	7.5% Reduction	

 $(0.38 \text{ was used as the } CO_2 \text{ conversion factor for electricity in comparison with FY 2005})$ 

#### Overview and Discussion of Activities

#### ①Response to the Restriction of Electricity Use in the Summer of 2011

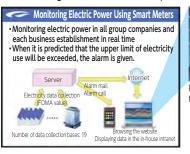
The Calsonic Kansei Group has sought to respond to the Japanese government's request for an overall reduction in electricity use of 15%. We have distributed engine compressors to each plant so that they can be operated in accordance with actual electricity use. We have also introduced Smart Meters which allow the amount of electricity used in all group companies and in each business establishment to be monitored at the headquarters, and power interchange between group companies to be managed. As a result, electricity use was reduced by 28% in the Tokyo Electric Power Company service area and by 25% in the Tohoku Electric Power Company service area.

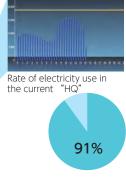
#### 1. Installation of an Engine Compressor





#### 2. Monitoring Activities Facilitated by the Installation of Smart Meters





### 3. Reducing electric power load on weekdays by rotating operation

Peak electric power use on weekdays is lowered by shifting electric power load from weekdays to weekends

#### Ordinary work system Rotation system (July to August) kW 8.000 8.000 7.000 7.000 6.000 5,000 5,000 4,000 4,000 3,000 3 000 2 000 2 000 1,000 1,000 Mon. Tue. Wed. Thu. Fri. Sat. Sun. Mon. Tue. Wed. Thu. Fri. Sat. Sun.

#### 2 Implementation of Energy-Saving Activities

- •Expansion of energy-saving cases at each base
- · Implementation of energy-saving diagnosis
- · Implementation of energy-saving measures (changing to LED lighting, reducing the number of mercury-vapor lamps and introducing energy-saving devices such as inverter-controlled water-cooling pumps)

Reducing the number of mercury-vapor lamps



#### Overview of Activities until FY 2011 (Overseas Affiliated Companies)

#### We are aiming to reduce CO<sub>2</sub> emissions per unit by 9.7% by FY 2016, compared to FY 2005

In order to achieve the goal described above, we targeted a 2% reduction in FY 2011, compared to FY 2010. By promoting reduction activities, a 5.6% reduction in CO<sub>2</sub> emissions per unit was achieved.

	EV 200E			Achievem	ent Status
Management Item	FY 2005 (base year) Results	FY 2010 Results	Results FY 2011 Results Compared with FY 2005		Compared with the Previous Year
CO <sub>2</sub> Emissions (t-CO <sub>2</sub> )	79,507	110,867	111,592	_	
CO <sub>2</sub> Emissions per Unit (t-CO <sub>2</sub> /million yen)	0.2919	0.2873	0.2712	7.1% Reduction	5.6% Reduction

(0.38 was used as the CO2 conversion factor for electricity, in comparison with FY 2005)

#### **Activities and Discussion**

1) Implementation of energy-saving activities

We are engaged in energy-saving activities at each base.

Case Study: Initiatives Implemented by Calsonic Kansel Wuxi Corporation (China)



Improvement of: 1). Installing sensor lamps in public areas such as streets

lighting ②. Changing from the in-house lights currently used to LED lamps

Improvement of: ①. Changing set temperatures

air-conditioning ②. Introducing an integrated air-conditioning controller for integrated management

③. Increasing the frequency of cleaning for filters

Improvemen of: ①. Making sure that the electric power is turned off on holidays production facilities ②. Changing the charging start time for forklifts

3. Making employees aware of the importance of electricity saving in facilities with high energy consumption

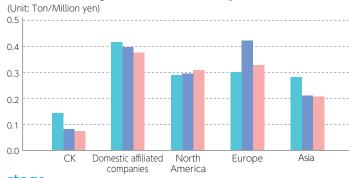
②Implementation of energy-saving diagnosis in overseas bases

The department of environmental energy management in Japan and the personnel in charge of energy management at bases in North America (the United States and Mexico) and China increased employees' understanding of energy saving and implemented diagnosis to evaluate and compare their respective situations in FY 2011.

#### Regional CO<sub>2</sub> Emission Status in FY 2011

We assessed the CO<sub>2</sub> emission status of our domestic and overseas affiliated companies.

#### Transition of Regional CO<sub>2</sub> Emissions per Unit in FY 2011



# FY05 FY10 FY11

#### Results (ton-kilometer) at the logistics stage

The right-hand graph shows a result of less than 30 million ton-kilometer, which does not require notification, etc. However, we have drawn up a reduction plan for logistics and we are making efforts to achieve the set goal.

#### **Activities and Discussion**

- ①Minimization of transportation between domestic bases by promoting overseas procurement
- ②Promotion of transportation by train
- ③Promotion of sea transportation



#### 2 Natural Resource Conservation Activities

To utilize the planet's limited resources efficiently, we are seeking to achieve zero emissions at all the global business bases of our group, to promote conservation activities, and to reduce the amounts of materials used and waste generated (waste and valuables).

#### Flowchart Illustrating Reuse Operations for Waste Discharged from Plants

Categories Types	Methods for Handling/Disposal	Disposal Location	Methods for Effective Usage	Recycled Products
Oil waste (including benzene and waste LLC) Other oily water	Oily water separation	Cement manufacturers Calsonic Kansei (fuel)	Sales of resources (recycled heavy oil)	Fuels, cement, roadbed materials
High quality paper, newspaper, magazines	Sorting/dissolving	Paper manufacturers	Sales of resources	Toilet paper, etc.
Cardboard, confidential documents, paper cores	Sorting/dissolving	Paper manufacturers	Sales of resources	Recycled paper, cardboard medium, etc.
Iron scraps and empty cans	Sorting/dissolving	Metal refining manufacturers	Steel-making materials	Steel, nonferrous metals (copper, aluminum, stainless steel) materials
Oil waste (cooking oil waste)	- Separation/recycling	Oleochemical manufacturers	Fuel for oleochemical manufacturers' company cars, feed	Biodiesel fuels, assorted feed
Fluorescent waste	Crushing/separation	Material manufacturers	Recycled materials for each element	Recycled materials (mercury, glass, metals)
Glass bottles	Sorting/crushing	Glass manufacturers	Glass materials	Glass bottles
Waste plastic (soft)	Crushing, volume reduction and solidification	Resin-recycling manufacturers	Boiler fuels	Solid fuels
Oil waste (oil-bearing waste cloth)	Incineration	Waste heat boiler installation manufacturers	Utilization of waste heat (collecting steam)	Boiler fuels
Waste plastic	Crushing/separation	General recycling manufacturers	Sorting, steel-making materials, fuels	Ferrous materials, solid fuels, fuels
Metal scraps (including aluminum chips)				
Fluorescent waste (crushed pieces) —				
Infectious waste	- Incineration and fusion	Shaft furnace manufacturers	Shaft furnace-reducing agents	Steel-making materials, roadbed
Glass ceramic scraps	incincration and lasion	Judion and lusion Share familiace manufacturers	share ramace readening agents	materials (incineration residues)
Sludge —				
Oil waste (filter)				
Sludge (flux, grinding residue)	Incineration	Shaft furnace manufacturers	Utilization of waste heat (furnace heat reserves) Shaft furnace-reducing agents	Roadbed materials (incineration residues)
Dehydrated sludge (filter press)	Classification	Shaft furnace manufacturers	Processing granular materials	Raw materials for cement
Wood scraps	Crushing	Waste wood-recycling manufacturers	Compressed graft cutting	Laminated wood (particle boards)
Wood clippings and grass	- Crushing/fermentation	Compost manufacturers	Compost materials	Compost

#### Overview of Activities until FY 2011 (Calsonic Kansei + Domestic Affiliated Companies)

#### We are aiming to reduce the amount of waste discharge per unit by 28% by FY 2016, compared to FY 2005

In order to achieve the goal described above, we targeted a 2% reduction in FY 2011, compared to FY 2010. By promoting these activities, a 12.7% reduction in waste discharge per unit was achieved.

Management items	Base year FY 2005	FY 2010	FY 2011	Achievem	ent Status	Waste discharge	Total amount of waste discharge
wana <sub>b</sub> emenenene	Results	Results	Results	Compared with FY 2005	Compared with the Previous Year	per unit —	Sales
Amount of waste discharge (t)	17,433	15,956	14,892	_	_		
Waste discharge per unit (t/million yen)	0.0367	0.0309	0.0270	26.6% Reduction	12.7% Reduction		

#### **Activities and Discussion**

①Horizontal development of resource-saving activities

②Improvement of poorly performing processes is targeted by promoting MTCR activities in each plant.

#### Overview of Activities until FY 2011 (Overseas Affiliated Companies)

#### We are aiming to reduce the amount of waste discharge per unit by 6% by FY 2016, compared to FY 2010

In order to achieve the goal described above, we targeted a 1% reduction in FY 2011, compared to FY 2010. Although we tried to reach this goal, the amount of waste discharge per unit increased by 1.5%, which shows that our target was not achieved.

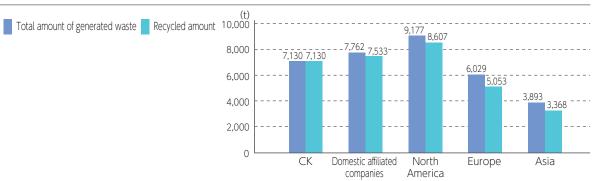
Management items	Base year FY 2010 Results	FY 2011 Results	Achievement Status  Compared with the Previous Year	Waste discharge per unit = Total amount of waste discharge Sales
Amount of waste discharge (t)	17,997	19,481	_	
Waste discharge per unit (t/million yen)	0.04663	0.04734	1.5% Increase	

#### **Activities and Discussion**

①The amount of waste discharge per unit was adversely affected by the increased waste accompanying the start of mass production of new car models in North America.

②Activities intended to improve poorly performing processes, such as measures to prevent damage to products when taking them out of the forming machine, have been conducted in cooperation with the MTCR Improvement Team.

#### Regional Total for Generated Waste and the Recycled Amount



#### 3 Water Resources Used and Reduction Measures

#### Overview of Activities until FY 2011 (Calsonic Kansei + Domestic Affiliated Companies)

#### We are aiming to reduce the volume of water consumption per unit by 21.4% by FY 2016, compared to FY 2009

In order to achieve the goal described above, we targeted a 1% reduction in FY 2011, compared to FY 2010. By promoting reduction activities, a 15.1% reduction in the volume of water consumption per unit was achieved.

Management items	Base year FY 2009 Results	FY 2010 Results	FY 2011 Results		ent Status  Compared with the Previous Year
Volume of water consumption (km³)	734	717	651	_	_
Water usage fee per unit (m³/million yen)	1.643	1.387	1.178	28.3% Reduction	15.1% Reduction

Activities and Discussion

We reduced the water usage fee per unit by adopting the measures shown below.

①Checking for leaks ②Cyclic use of cooling water ③Reuse of rain water

#### Regional Amount of Water Resources Usage in FY 2011



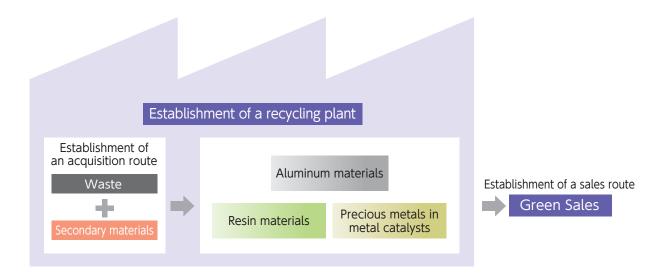


# **Recycling Activities**

Calsonic Kansei has been consistently involved in recycling activities as a voluntary initiative for environmental conservation – even though this may affect profits. We will continue to promote recycling activities to meet the needs of a sustainable society.

#### 1 Recycling System of Calsonic Kansei

Calsonic Kansei is promoting in-house recycling activities as well as the recycling of waste generated from outsourced business activities.



#### 2 Activities in FY 2011

#### 1. Secondary aluminum alloy

We collect aluminum mill ends, etc., generated in the manufacturing process used to recycle secondary aluminum alloy, and then reuse them for our affiliated companies' aluminum products. This contributes to resource recycling.

#### 2. Collecting and Recycling Precious Metals from Used Catalysts for Purifying Exhaust Gases

We effectively separate and collect "materials containing precious metals (wash coat) that can be used as a valuable resource" from catalysts for purifying automobile exhaust fumes, etc. by using environmentally friendly dry separation devices.



Used catalysts for purifying exhaust gases



Collected powder (containing precious metals)



Precious metal

	Amount of collected and recycled aluminum	Amount of used catalysts collected for purifying exhaust gases
FY 2009 Results	2,054 tons	20,013 units
FY 2010 Results	2,630 tons	13,052 units
FY 2011 Results	2,350 tons	18,422 units

# 10

## **Environmental Communication**

Calsonic Kansei is ensuring that it not only discloses environment-related information to society but also communicates with every stakeholder supporting us in order to strengthen relationships and contribute to a trustworthy social framework.

#### 1 Communication with Local Communities and Society

By ensuring that all employees of the Calsonic Kansei Group commit themselves to solving environmental problems, we are helping to make a better environment, in cooperation with people in the local communities.

#### 1. Environmental Communication with Local Communities

#### CK Yoshimi Plant



We are giving a presentation on environmental improvement cases, etc., at a meeting hosted by the Saitama prefectural government.



CKF is a production base in Fukushima Prefecture where we are explaining the post-earthquake situation and describing activities for restricting electric power usage in summer, etc.

#### 2. Internship for Students in Local Communities (work experience)

#### CKP Itakura Plant



Internship in the "Dreams Come True Plan" in cooperation with local communities

#### Calsonic Kansei Gunma Plant



Internship for junior high school students in local communities

#### CKK Nakatsu Plant



Internship for high school students in local communities

#### 3. Plant Tours for Students in Local Communities

#### Calsonic Kansei Iwate Corporation



We are inviting elementary school students in local communities in order to nurture environmental and human resources for the future

#### CKP Itakura Plant



We are inviting high school students in local communities in order to introduce the summary of our plant and environmental activities.

#### Calsonic Kansei UK Limited (England)





We are inviting students in local communities in order to introduce the summary of our plant and development center.

#### 4. Environment Appreciation Day

Calsonic Kansei Thailand Co., Ltd. (Thailand)









We held a "Thank You for the Environment Day" event, based on the theme of "forestation", in 2011.



We are providing participants with compost generated by the food waste-processing machine.

#### 5. Support of Suppliers for Environmental Activities

Calsonic Kansei Oppama Plant



We are helping our suppliers obtain ISO 14001 certification.

#### 6. Cleaning Activities in Local Communities

Calsonic Kansei Kodama Plant



We are conducting environmental cleaning activities in the industrial park 3 times a year.

Calsonic Kansei Utsunomiya Corporation



We are conducting cleaning activities in the area surrounding our company.

#### Calsonic Kansei Experiment Study Center



We are regularly conducting cleaning activities in the industrial park.

Tokyo Radiator MFG Co., Ltd.



We are conducting cleaning activities along the peripheral roads of our company.

#### 7. Other Activities

- · Cleaning activities involving the setting up of flower planters
- · Greening activities such as greening the wall of the plant

#### Explanation provided to our Stockholders

We described our environmental efforts in our mid-term report, actively publicizing our environmental conservation activities to our stockholders.

#### 3 Community Partnership Activities & Green Partnership Activities

In FY 2008, Community Partnership Activities and Green Partnership Activities began as part of environmental efforts in the production departments, displaying a completion ratio (%) in order to evaluate each activity. Since we accomplished 100% of our completion ratio in FY 2010, we are now striving to maintain that status.

#### 1. Community Partnership Activities

Community Partnership Activities are activities that promote our environmental efforts to the communities near our plants and to society in general.

Activities

Supplying environmental information via our website

Explaining our environmental efforts to plant visitors

Explaining our environmental efforts at external lectures, etc.

Environment-related activities contributing to local communities

#### 2. Green Partnership Activities

Green Partnership Activities are activities that promote environmental improvement and environmental accident prevention in conjunction with cooperating companies.

#### Activities

Conducting activities, targeting cooperating companies which enter the premises of our company

Seeking cooperation for environmental improvement activities and environmental accident prevention activities

Standardizing the procedure for requesting cooperation and utilizing it

#### Communication with Society

We believe that it is essential for companies to disclose their corporate environmental activities and achievements in a timely manner. Therefore, we are publicizing our activities and achievements to the public and various groups by disclosing our environmental report on our website, explaining our activities through IR, etc.

The efforts made by the Calsonic Kansei Corporation are shown on the Website of Calsonic Kansei Corporation

URL http://www.calsonickansei.co.jp/

#### 5 Communication with Employees

#### 1. In-house Communication

We are providing environmental information in a timely manner through the Intranet and by educating our employees, as well as the employees of our affiliated companies.

#### 2. Measures Taken in Offices

The room temperature in offices is now set at 28°C as part of "cool-biz" practice in order to reduce energy consumption and help prevent global warming.

## **Environmental Performance Data**

#### Gunma Plant

Address: 132 Shin-Nakano, Oura-cho, Oura-gun, Gunma Area: 224,781 m<sup>2</sup> Buildings: 64,352 m² Major Products:
Air-conditioning units, condensers,

exhaust products, metal supports



#### Oppama Plant

Address: 18 Natsushima-cho, Yokosuka City, Kanagawa Area: 22,514 m<sup>2</sup>

Buildings: 17,434 m²

Major Products: Exhaust products



Ordinance and Agreement	Gunma Prefectural Ordinance	e, Oura Town Agreer	ment, Sewage Law		
Items Regarding Waste	Regulation Value	Res	ults		
Water Regulations	regulation value	Minimum	Maximum		
рН	6.5~8.5	7.4	8.0		
SS	30 mg/l and less	10.7	20.7		
BOD	20 mg/l and less	4.1	9.8		
N-Hex	3 mg/l and less	0.9	1.5		
F	8 mg/l and less	0.8	1.5		
Zn	2 mg/l and less	0.1 and less	0.3		
Р	16 mg/l and less	0.2	0.5		
N	120 mg/l and less	2.3	5.9		
Cu	3 mg/l and less 0.1 and less		nd less		
Ni	_	_	_		
Fe	5 mg/l and less	0.1 and less	0.4		
COD	_	_	_		
E. coli bacteria	3000 and less	0	80		
Dichloromethane	0.2 mg/l and less	0.02 a	and less		
Total volume of water discharge		5.	4.8 (km³)		
Drainfield	Discharged into a river (sub	sidiary stream of the	e Tone River)		
BOD average		7	'.3 (mg/l)		
Amount of pollution load (BOD)			0.4(t)		
SOx			_		
NOx	_				
Soot Dust			_		
CO <sub>2</sub>		1	8,351(t)		

Ordinance and Agreement	Kanagawa Prefectural Ordinance, '		0		
Items Regarding Waste	Regulation Value	Results			
Water Regulations	regulation value	Minimum	Maximum		
рН	5.8~8.6	7.2	7.6		
SS	300 mg/l and less	1.0 and less	3.2		
BOD	300 mg/l and less	1.0 and less	2.8		
N-Hex	5 mg/l and less	0.5 and less	0.6		
F	_	_	_		
Zn	1.0 mg/l and less	0.1	0.3		
Р	6.25 mg/l and less	0.1 and less	0.2		
Ν	50 mg/l and less	2.3	6.1		
Cu	1.0 mg/l and less	0.1 and less	0.5		
Ni	1.0 mg/l and less	0.1 ar	nd less		
Fe	3 mg/l and less	0.1	0.3		
COD	_	_	_		
E. coli bacteria	_	_	_		
Dichloromethane	_	_	_		
Total volume of water discharge		1.	3.6 (km³)		
Drainfield			Sewage		
BOD average		1	.4 (mg/l)		
Amount of pollution load (BOD)			0.02(t)		
SOx			_		
NOx	0.34(t)				
Soot Dust			0.045(t)		
CO <sub>2</sub>			2,069(t)		

#### Yoshimi Plant

Address: 628 Ooaza-Kumeda, Yoshimimachi, Hiki-gun Saitama Area: 141,784 m² Buildings: 49,700 m<sup>2</sup>

Major Products: Instrument panels, center consoles



#### Kodama Plant

Address: 540-7 Kyoei, Kodama-cho, Honjo City, Saitama Area: 51,168 m<sup>2</sup>

Buildings: 15,838 m<sup>2</sup>

Major Products: Electronic control units



Ordinance and Agreement	Saitama Pre	fectural Ordinan	ce		
Items Regarding Waste	Regulation Value	Res			
Water Regulations	regulation value	Minimum	Maximum		
рН	5.8~8.6	7.1	7.7		
SS	90 mg/l and less	1.6	9.2		
BOD	25 mg/l and less	1.0 and less	4.9		
N-Hex	5 mg/l and less	0.5 ar	nd less		
F	_	_	_		
Zn	_	_	_		
Р	8 mg/l and less	1.3	6.0		
N	60 mg/l and less	5.8	28.1		
Cu	_	_	_		
Ni	_	_	_		
Fe	_	_	_		
COD	60 mg/l and less	5.6	17.0		
E. coli bacteria	3000 and less	0	90		
Dichloromethane	_	_	_		
Total volume of water discharge		3.	4.3 (km³)		
Drainfield	Discharged into a river (subs	idiary stream of the	Ichino River)		
BOD average		2	1.3 (mg/l)		
Amount of pollution load (BOD)	0.08(t)				
SOx	No Sulfur content due to the use of city gas and LPG				
NOx	1.23(t)				
Soot Dust			0.01(t)		
CO <sub>2</sub>			6,908(t)		

Ordinance and Agreement	Saitama Prefectural Ordinance				
Items Regarding Waste		1	ults		
Water Regulations	Regulation Value	Minimum	Maximum		
рН	5.8~8.6	6.3	7.8		
SS	60 mg/l and less	6.0	20.0		
BOD	25 mg/l and less	2.0	11.0		
N-Hex	30 mg/l and less	3.0 aı	nd less		
F	_	_	_		
Zn	_	_	_		
Р	_	_	_		
N	_	_	_		
Cu	-	_	_		
Ni	_	_	_		
Fe		_	_		
COD	160 mg/l and less	4.0	16.0		
E. coli bacteria	3000 and less	30 ar	nd less		
Dichloromethane	_	_	_		
Total volume of water discharge	B. I. II. II.		1.4 (km³)		
Drainfield	Discharged into a river (subs				
BOD average		4	1.9 (mg/l)		
Amount of pollution load (BOD)					
SOx	0.077(t)				
NOx	0.611(t)				
Soot Dust			0.006(t)		
CO <sub>2</sub>			3,333(t)		

#### Calsonic Kansei Corporation

#### Experiment Study Center

Address: 8 Sakae-cho, Sano City, Tochigi Area: 73,829 m² Buildings: 47,141 m²



#### **R&D** Center and Headquarters

Address: 2-1917 Nisshin-cho, Kita-ku, Saitama City, Saitama Area: 33,047 m<sup>2</sup> Buildings: 10,704 m<sup>2</sup>



Ordinance and Agreement	Tochigi Prefectural Ordinance,	Sano Municipal Ordii	nance, Sewage Law
Items Regarding Waste	Regulation Value	Res	
Water Regulations	o o	Minimum	Maximum
рН	5.0~9.0	6.9	8.4
SS	600 mg/l and less	1.0 and less	107.0
BOD	600 mg/l and less	1.0 and less	179.0
N-Hex	5 mg/l and less	1.0 ar	nd less
F	_	_	_
Zn	_	_	_
Р	_	_	_
N	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	_	_	_
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge		6	4.4(km³)
Drainfield		Sewage, N	1isugi River
BOD average		34	.6(mg/l)
Amount of pollution load (BOD)			2.23(t)
SOx			_
NOx			_
Soot Dust			_
CO <sub>2</sub>			7,039(t)

Ordinance and Agreement	Saitama Prefectural Ordinance, S	aitama Municipal Orc	dinance, Sewage Law
Items Regarding Waste	Regulation Value		ults
Water Regulations	Negatation value	Minimum	Maximum
рН	5.0~9.0	7.2	7.4
SS	600 mg/l and less	41.5	268.0
BOD	600 mg/l and less	18.6	220.0
N-Hex	5 mg/l and less	1.0 ar	nd less
F	_	_	_
Zn	_	_	_
Р	_	_	_
N	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	_	_	_
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge		2	4.5 (km³)
Drainfield			Sewage
BOD average		7	74 (mg/l)
Amount of pollution load (BOD)			1.8 (t)
SOx			0.027(t)
NOx	0.039(t)		0.039(t)
Soot Dust			0.001 (t)
CO <sub>2</sub>			2,078(t)

#### Domestic Affiliated Companies

#### CKK (Headquarters and Usa Plant)

Address: 111 Ooaza-Waki, Usa City, Ooita Area: 99,146 m²

Buildings: 19,427 m<sup>2</sup>

Major Products: Instrument panels



#### CKK (Nakatsu Plant)

Address: 150-3 Ooaza-Inumaru, Nakatsu City, Ooita Area: 48,646 m² Buildings: 17,803 m²

Major Products:
Air-conditioning units, radiators,
exhaust products



Ordinance and Agreement	Ooita Prefectural Ordina	ance, Usa Municip	oal Agreement
Items Regarding Waste	Regulation Value	Res	
Water Regulations	regulation value	Minimum	Maximum
рН	6.0~8.6	7.2	8.0
SS	60 mg/l and less	2.0	12.0
BOD	60 mg/l and less	1.0 and less	18.0
N-Hex	2 mg/l and less	1.0 ar	nd less
F	_	_	_
Zn	_	_	_
Р	_	_	_
N	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	60 mg/l and less	4.0	9.0
E. coli bacteria	_	0	0
Dichloromethane	_	_	_
Total volume of water discharge		!	5.6 (km³)
Drainfield	Discharged	d into a river (Yo	
BOD average		2	5 (mg/l)
Amount of pollution load (BOD)			0.01(t)
SOx			0.11(t)
NOx			0.26(t)
Soot Dust			0.004(t)
CO <sub>2</sub>			6,069(t)

childust products			
Ordinance and Agreement	Ooita Prefectural Ordinan	ce, Nakatsu Muni	cipal Agreement
Items Regarding Waste	Regulation Value	Res	ults
Water Regulations	Regulation value	Minimum	Maximum
рН	6.0~8.5	6.7	7.7
SS	30 mg/l 以下	1.0 and less	14.0
BOD	30 mg/l 以下	0.5 and less	15.0
N-Hex	5 mg/l 以下	0.5 and less	1.1
F	_	_	_
Zn	_	_	_
Р	8 mg/l 以下	0.74	4.9
N	60 mg/l 以下	6.6	53.0
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	_	_	_
E. coli bacteria	3000 and less	2.0 and less	2.0
Dichloromethane	_	_	_
Total volume of water discharge	(Living water-p	ourification tanks	s) 9(km³)
Drainfield	Discharged	into a river (Inur	maru River)
BOD average	5.7 (mg/l)		
Amount of pollution load (BOD	0.05(t)		
SOx	0.13(t)		
NOx	0.47(t)		
Soot Dust			0.014(t)
CO <sub>2</sub>	9.710(t)		

#### **Domestic Affiliated Companies**

#### CKF (Headquarters and Nihonmatsu Plant)

Address: 5-1 Sumiyoshi, Nihonmatsu City, Fukushima

Area: 68,400 m<sup>2</sup> Buildings: 13,800 m²

Major Products:
Meters, tank units, a variety of sensors,



#### CKF (Tanagura Plant)

Address: 12-1 Gyouninzuka, ooaza-Uwadai, Tanagura-machi, Higashi-Sirakawa-gun, Fukushima

Area: 21,682 m<sup>2</sup> Buildings: 4,781 m<sup>2</sup> Major Products:

Tank units, rotation sensors



Ordinance and Agreement	Fukushima Prefectural Ordina	nce, Nihonmatsu Mı	unicipal Ordinance
Items Regarding Waste	Regulation Value Resu		
Water Regulations	regulation value	Minimum	Maximum
рН	5.8~8.6	7.1	7.6
SS	70 mg/l and less	1.0 and less	11.2
BOD	25 mg/l and less	1.0 and less	13.4
N-Hex	5 mg/l and less	0.5 and less	0.6
F	_	_	_
Zn	_	_	_
Р	-	_	_
N	-	_	_
Cu	_	_	_
Ni	-	_	_
Fe	-	_	_
COD	_	_	_
E. coli bacteria	3000 and less	(	
Dichloromethane	_	_	_
Total volume of water discharge		18	8.3(km³)
Drainfield	Discharged into a river (subsidi	ary stream of the Ab	oukuma River)
BOD average	-	3	.3 (mg/l)
Amount of pollution load (BOD)	0.06(t)		
SOx	No Sulfur content due to the use of LPG		use of LPG
NOx	0.2(t)		
Soot Dust			0.044(t)
CO <sub>2</sub>			3,432(t)

Ordinance and Agreement	Fukushima Prefectural Ord	inance, Tanagura	Town Ordinance
Items Regarding Waste	Regulation Value	Results	
Water Regulations	regulation value	Minimum	Maximum
рН	5.8~8.6	6.4	7.6
SS	200 mg/l and less	1.0 and less	2.8
BOD	160 mg/l and less	1.0 and less	2.8
N-Hex	5 mg/l and less	0.5 ar	nd less
F	_	_	_
Zn	_	_	_
Р	_	_	_
N	_	_	_
Cu	-	_	_
Ni	_	_	_
Fe	-	_	_
COD	_	_	_
E. coli bacteria	3000 and less	(	
Dichloromethane	_	_	_
Total volume of water discharge			3.1 (km³)
Drainfield	Discharged into a river (subsidi	iary stream of the Ab	oukuma River)
BOD average	•	1	.4(mg/l)
Amount of pollution load (BOD)			0.004(t)
SOx			_
NOx			_
Soot Dust			_
CO <sub>2</sub>			553(t)

#### Domestic Affiliated Companies

#### CKF (Fukushima Factory)

Address: 11-1 Aza-Yamamichi, Arai, Fukushima City, Fukushima Area: 8,512 m<sup>2</sup>

Buildings: 4,970 m<sup>2</sup>

Major Products:
Resin molded parts, sirocco fans, gasoline caps, oil caps



#### Tokyo Radiator MFG Co., Ltd.

Address: 2002-1 Endo, Fujisawa City,

Kanagawa Area: 88,254 m<sup>2</sup> Buildings: 41,004 m<sup>2</sup>

Major Products: Radiators, EGR coolers, oil coolers, intercoolers, fuel coolers, oil pans, vacuum tanks, fuel tanks, SCR tanks, etc.



Ordinance and Agreement	Fukushima Prefectural Ordina	ance Fukushima Mu	nicipal Ordinance
Items Regarding Waste	Poculto		
Water Regulations	Regulation Value	Minimum	Maximum
рН	5.8~8.6	7.6	8.3
SS	200 mg/l and less	3.2	9.4
BOD	160 mg/l and less	8.8	20.0
N-Hex	5 mg/l and less	0.5	1.3
F	_	_	_
Zn	_	_	_
Р	_	_	_
Ν	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	_	_	_
E. coli bacteria	3000 and less	60	78
Dichloromethane	_	_	_
Total volume of water discharge			0.8 (km³)
Drainfield	Discharged into a river (subsidi	iary stream of the Ab	oukuma River)
BOD average		14	l.4(mg/l)
Amount of pollution load (BOD)	0.01(t)		
SOx			_
NOx	_		
Soot Dust			_
CO <sub>2</sub>			1,336(t)

Ordinance and Agreement	Kanagawa Prefectural Ordinance	, Fujisawa Municipal	Greening Agreement
Items Regarding Waste	Regulation Value Resul		ults
Water Regulations	regulation value	Minimum	Maximum
рН	5.8~8.6	7.1	7.5
SS	90 mg/l and less	1.0 and less	4.0
BOD	60 mg/l and less	1.0 and less	7.1
N-Hex	5 mg/l and less	0.5 and less	2.3
F	8 mg/l and less	0.2 and less	2.4
Zn	2 mg/l and less	0.1 ar	nd less
Р	_	_	_
N	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	-	_	_
COD	60 mg/l and less	4.0	15.7
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge		2	25 (km³)
Drainfield	Discharged into a river (subsi	idiary stream of the	Isshiki River)
BOD average	, and the second	· 3	3.2 (mg/l)
Amount of pollution load (BOD)	0.72(t)		
SOx	No Sulfur content due to the use of city gas		
NOx	0.23(t)		
Soot Dust	_		
CO <sub>2</sub>		1	1,610(t)

#### **Domestic Affiliated Companies**

#### CKP (Sano Plant Area 1)

Address: 765 Aza-Ishihara, Takahagi-cho, Sano City, Tochigi Area: 12,012 m<sup>2</sup> Buildings: 5,670 m²

Major Products: Resin molded parts, intake, motor fans, liquid tanks, relief valves



## CKP (Headquarters, Sano Plant Area 2)

Address: 14-4 Sakae-cho, Sano City, Tochigi

Area: 9,010 m<sup>2</sup> Buildings: 5,741 m<sup>2</sup>

Major Products:
Pressed parts, radiator caps, cup holders, switches, interior assemblies



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Ordinance and Agreement	Tochigi Prefectural Ordinance, Sano Municipal Ordinance		
Items Regarding Waste Water Regulations	Regulation Value	Results	
рН	5.0~9.0	6.8	
SS	600 mg/l and less	2.4	
BOD	600 mg/l and less	2.0	
N-Hex	5 mg/l and less	1.0 and less	
F	_	_	
Zn	-	_	
Р	_	_	
Ν	_	_	
Cu	_	_	
Ni	_	_	
Fe	_	_	
COD	_	_	
E. coli bacteria	-	_	
Dichloromethane	_	_	
Total volume of water discharge		3.9 (km³)	
Drainfield	Discharged into a river (sub	osidiary stream of the Misugi River)	
BOD average		2.0 (mg/l)	
Amount of pollution load (BOD)	0.01 (t)		
SOx	_		
NOx	_		
Soot Dust	-		
CO <sub>2</sub>		2,098(t)	

Ordinance and Agreement	Tochigi Prefectural Ordinance,	Sano Municipal Ordinance, Sewage Law	
Items Regarding Waste Water Regulations	Regulation Value	Results	
рН	5.0~9.0	7.0	
SS	600 mg/l and less	1.0 and less	
BOD	600 mg/l and less	1.1	
N-Hex	5 mg/l and less	1.0 and less	
F	_	_	
Zn	_	_	
Р	_	_	
N	_	_	
Cu	_	_	
Ni	_	_	
Fe	_	_	
COD	_	_	
E. coli bacteria	_	_	
Dichloromethane	_	_	
Total volume of water discharge		3.9(km³)	
Drainfield		Sewage	
BOD average		1.1 (mg/l)	
Amount of pollution load (BOD)	0.004(t)		
SOx	_		
NOx	_		
Soot Dust		_	
CO <sub>2</sub>		524(t)	

#### Domestic Affiliated Companies

#### CKP (Itakura Plant)

Address: 7 Aza-Futoi, Ooaza-Ookura, Itakura-cho, Oura-gun, Gunma Area: 16,500 m<sup>2</sup>

Buildings: 4,161 m<sup>2</sup>

Major Products: Integrated switches for heating air-conditioners, controls, electronic circuits



#### CKP (Tochigi Plant)

Address: 144-1 Shimokoyama, Shimono City, Tochigi

Area: 18,886 m<sup>2</sup> Buildings: 10,497 m<sup>2</sup>

Major Products:
Car interior resin parts, instrument panels, consoles, etc



Ordinance and Agreement	Gunma Prefectural Ordir	nance, Itakura To	wn Agreement
Items Regarding Waste	Regulation Value	Res	ults
Water Regulations	Negulation value	Minimum	Maximum
рН	5.8~8.6	6.6	7.4
SS	15 mg/l and less	4.0	10.0
BOD	15 mg/l and less	9.0	11.0
N-Hex	3 mg/l and less	1.0 ar	nd less
F	_	_	_
Zn	_	_	_
Р	_	_	_
Ν	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	_	_	_
E. coli bacteria	1000 and less	30 ar	d less
Dichloromethane	_	_	_
Total volume of water discharge			6 (km³)
Drainfield	Discharged into a river (sub	osidiary stream of the V	Vatarase River)
BOD average	-	10	.3 (mg/l)
Amount of pollution load (BOD)	0.06(t)		0.06(t)
SOx			_
NOx	_		_
Soot Dust			-
CO <sub>2</sub>			1,546(t)

Ordinance and Agreement	Tochigi Prefectural Ordinar	nce, Shimono Mun	icipal Agreement
Items Regarding Waste	Regulation Value		ults
Water Regulations	negalation value	Minimum	Maximum
рН	5.8~8.6	6.8	6.9
SS	50 mg/l and less	3.2	4.0
BOD	30 mg/l and less	1.0 and less	1.7
N-Hex	5 mg/l and less	0.9	1.0
F	_	_	_
Zn	_	_	_
Р	_	_	_
N	_	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	30 mg/l and less	5.7	9.7
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge		10	).2 (km³)
Drainfield	Discharged in	to a river (the Su	gata River)
BOD average	ŭ	1	.4(mg/l)
Amount of pollution load (BOD)	0.01 (t)		0.01(t)
SOx			_
NOx	_		_
Soot Dust			_
CO <sub>2</sub>			2,246(t)

#### **Domestic Affiliated Companies**

#### Calsonic Kansei Utsunomiya (CKU)

Address: 11-6 Kiyohara Industrial Park, Utsunomiya City, Tochigi

Area: 66,100 m<sup>2</sup> Buildings: 20,864 m²

Major Products:
Compressors for car air-conditioners, parts



#### Calsonic Kansei Iwate (CKI)

Address: 1-27-5 Tatekawame, Waga-cho, Kitakami City, Iwate Area: 23,410 m<sup>2</sup>

Buildings: 9,742 m² Major Products:

Compressors for car air-conditioners



Ordinance and Agreement	Tochigi Prefectural Ordinance, Utsunomiya Municipal Agreement		
Items Regarding Waste	Regulation Value	Results	
Water Regulations		Minimum	Maximum
рН	5.8~8.6	6.8	7.8
SS	40 mg/l and less	1.0	5.2
BOD	20 mg/l and less	1.0	9.2
N-Hex	5 mg/l and less	0.5	0.7
F	_	_	_
Zn	_	_	_
Р	-	_	_
N	-	_	_
Cu	_	_	_
Ni	_	_	_
Fe	_	_	_
COD	20 mg/l and less	1.9	15.7
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge	2.8 (km³)		
Drainfield	Via the Kiyohara Industrial Park Disposal Plant to the Kinu River		
BOD average	4.6 (mg/l)		
Amount of pollution load (BOD)	0.01(t)		
SOx	_		
NOx	_		
Soot Dust	_		
CO <sub>2</sub>	3,168(t)		

Ordinance and Agreement	Iwate Prefectural Ordinance, Kitakami Municipal Agreement		
Items Regarding Waste	Regulation Value	Results	
Water Regulations	Regulation value	Minimum	Maximum
рН	5.8~8.6	6.6	8.2
SS	200 mg/l and less	1.0	11.0
BOD	160 mg/l and less	0.5	18.0
N-Hex	5 mg/l and less	0.5	
F	8 mg/l and less	0.12	
Zn	2 mg/l and less	0.012	
P	16 mg/l and less	0.27	2.5
Ν	120 mg/l and less	3.8	16.0
Cu	3 mg/l and less	0.005	
Ni	_	_	_
Fe	10 mg/l and less	0.0	03
COD	160 mg/l and less	0.6	32.0
E. coli bacteria	3000 and less	30	120
Dichloromethane	_	_	_
Total volume of water discharge	9.4 (km³)		
Drainfield	Discharged into a river (the Waga River)		
BOD average	6.0 (mg/l)		
Amount of pollution load (BOD)	0.06(t)		
SOx	_		
NOx	<del>-</del>		
Soot Dust			_
CO <sub>2</sub>			4,225(t)

#### Domestic Affiliated Companies

#### Calsonic Kansei Yamagata (CKY)

Address: 190 Chuo Industrial Park, Sagae City,

Yamagata Area: 10,616 m<sup>2</sup> Buildings: 5,077 m<sup>2</sup> Major Products:

Aluminum die casting, parts processing



Ordinance and Agreement	Complying with laws and regulations		
Items Regarding Waste	Regulation Value	Results	
Water Regulations		Minimum	Maximum
рН	5.8~8.6	6.3	6.9
SS	200 mg/l and less	4.4	70.0
BOD	160 mg/l and less	1.6	45.3
N-Hex	5 mg/l and less	0.5	3.9
F	_	_	_
Zn	-	_	_
Р	-	-	_
N	_	_	_
Cu	-	_	_
Ni	_	_	_
Fe	-	_	_
COD	_	_	_
E. coli bacteria	_	_	_
Dichloromethane	_	_	_
Total volume of water discharge			_
Drainfield	Sagae River		
BOD average	15.2 (mg/l)		
Amount of pollution load (BOD)	0.00(t)		
SOx	_		
NOx	_		
Soot Dust	_		
CO <sub>2</sub>	4,651 (t)		

# Thank you for reading the "2012 Calsonic Kansei Environmental Report".

We have summarized the Calsonic Kansei Group's efforts for environmental conservation activities in FY 2011 in the "2012 Calsonic Kansei Environmental Report."

We have stressed the importance of "summarizing the environmental conservation activities of Calsonic Kansei as clearly as possible in this report to all readers" and "describing our updated activities and showing that they comply with all relevant guidelines."

We have also stopped issuing this report in written form on paper in order to help conserve the environment.

We would like to stay in close communication with you through the Calsonic Kansei Environmental Report, now and in the future.

October 2012

#### Issued by

Environment & Energy Control Group Calsonic Kansei Corporation 2-1917 Nisshin-cho, Kita-ku, Saitama City, Saitama 331-8501 Issued in October 2012 (annual publication)

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