

Furukawa Electric Group  
CSR Report 2011  
*Corporate Social Responsibility*

**Data Book**



## Environmental Impact of the Furukawa Electric Group in Fiscal 2011

INPUT				Furukawa Electric Seven works, 28 domestic affiliated companies and 39 overseas affiliates	OUTPUT			
Category	Domestic	Overseas	Unit		Category	Domestic	Overseas	Unit
<b>Raw materials</b>					<b>Waste</b>			
Copper	256,164	139,592	tons		Total waste generated	61,555	23,351	tons
Aluminum	313,507	28,545	tons		Final waste disposal	1,359	5,052	tons
Iron	5,801	6,801	tons		Recycling amount	55,788	13,293	tons
Nickel	973	—	tons		<b>Atmospheric emissions</b>			
Chromium	191	—	tons		CO <sub>2</sub>	846,552	448,323	tons-CO <sub>2</sub>
Manganese	1,543	—	tons		SO <sub>x</sub>	110	—	tons
Magnesium	5,396	—	tons		NO <sub>x</sub>	690	—	tons
Other metals	49,929	—	tons		Soot	47	—	tons
Rubber	51	—	tons		<b>Chemical substances</b>			
Glass	142	623	tons		Volume emitted	218	—	tons
Plastic	34,768	28,497	tons		Volume transferred	246	—	tons
<b>Energy</b>	<b>18,838</b>	<b>6,712</b>	<b>TJ</b>		<b>Wastewater</b>	<b>23,687</b>	<b>1,084</b>	<b>1,000m<sup>3</sup></b>
Electricity (purchased electricity)	1,098,223	462,780	MWh	Public waterways	22,498	507	1,000m <sup>3</sup>	
Electricity (hydroelectric power)	159,731	22,063	MWh	Rivers	20,828	282	1,000m <sup>3</sup>	
Electricity (solar power)	11	—	MWh	Sea	1,666	0	1,000m <sup>3</sup>	
City gas	44,261	1,532	1,000m <sup>3</sup>	Other	3	225	1,000m <sup>3</sup>	
LPG	40,962	1,648	tons	Sewer	1,189	577	1,000m <sup>3</sup>	
Heavy fuel oil A	11,249	1,153	kl	BOD	46	—	tons	
Kerosene	17,744	6	kl	COD	33	—	tons	
Light oil	624	357	kl	SS	34	—	tons	
<b>Water</b>	<b>26,196</b>	<b>2,240</b>	<b>1,000m<sup>3</sup></b>	<b>Product shipping volume</b>	<b>894,370</b>	<b>—</b>	<b>tons</b>	
Industrial water	19,429	72	1,000m <sup>3</sup>	<b>Product collection volume</b>	<b>5,483</b>	<b>—</b>	<b>tons</b>	
Groundwater	5,563	592	1,000m <sup>3</sup>	Type of cable	4,963	—	tons	
Tap water	1,204	1,576	1,000m <sup>3</sup>	Plastics	438	—	tons	
<b>Chemical substances</b>				Metals	82	—	tons	
Volume handled*1	60,169	—	tons	<b>Volume of water recycled and reused</b>	<b>44,526</b>	<b>166,746</b>	<b>tons</b>	
<b>Packaging*2</b>								
Cardboard	822	—	tons					
Wood	49,279	5,562	tons					
Plastic	399	—	tons					
Paper	379	621	tons					
<b>Paper*3</b>	<b>84</b>	<b>—</b>	<b>tons</b>					

\*1 PRTR-listed substances

\*2 Cardboard, wood, plastic, and paper used in product shipping

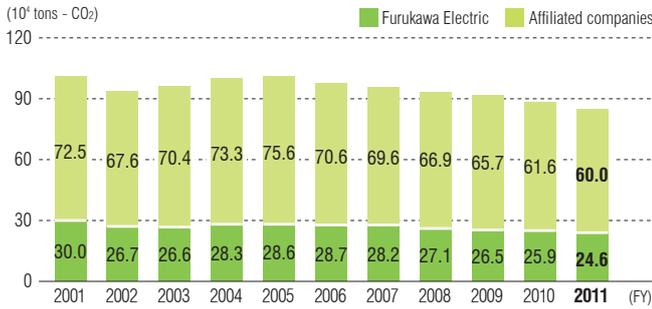
\*3 OA paper, copy paper, etc. used at plants and offices

## List of Products Subject to LCA in Fiscal 2012

Company/Affiliated company	Products subject to PCRs	
Energy and Industrial Products Company	F-CO tape EFLEX MC-PET, etc.	8
Telecommunications Company	Optical fiber cables Halogen-free wires Optical fiber cable fusion splicers Optical amplifiers Splitter modules Semiconductor laser modules, etc.	18
Electronics and Automotive Systems Company	Enameled wires Memory discs Wire harnesses, etc.	7
Metals Company	Busbar	1
Affiliated company	Memory disc materials (Furukawa-Sky)	1
<b>Total</b>		<b>35</b>

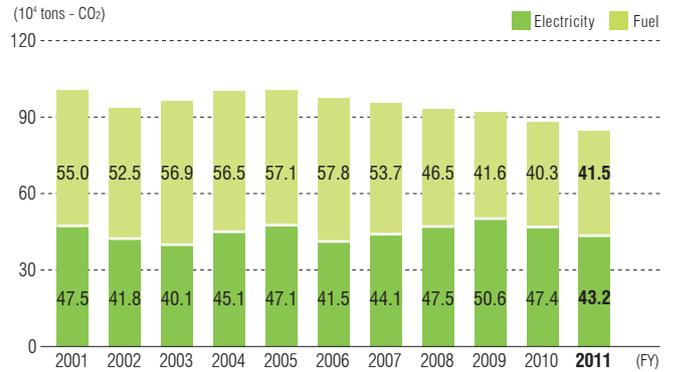
## Reducing Greenhouse Gas Emissions

### Greenhouse gas emissions

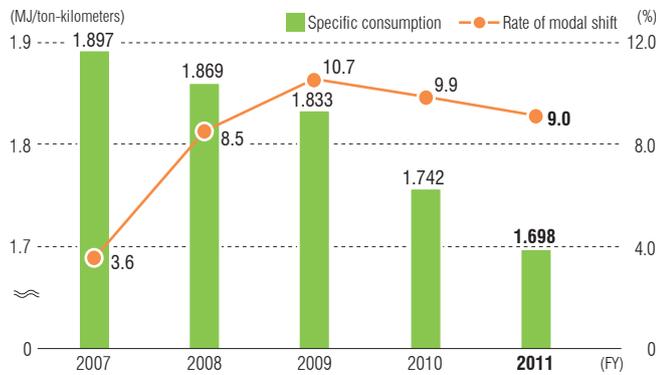


Notes: 1. The emissions coefficients of the respective power companies are used to convert power use volumes.  
 2. CO<sub>2</sub> emissions attributable to hydroelectric power are deemed to be zero.  
 3. The portion for the Furukawa Magnet Wire Co., Ltd. Mie Works is excluded retroactively in 2000, and is included in that for affiliates.

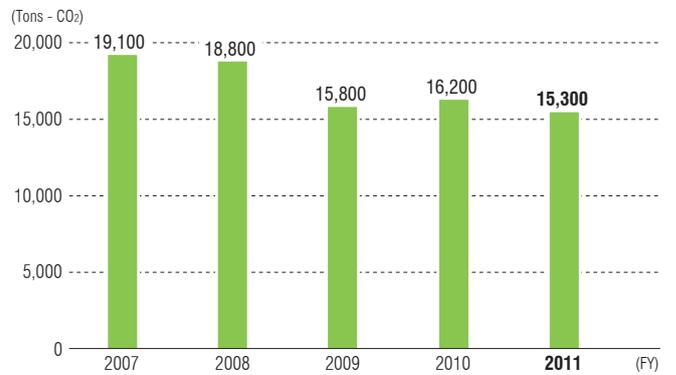
### Greenhouse gas emissions (fuel/electricity)



### Modal shift and specific consumption (Furukawa Electric only)

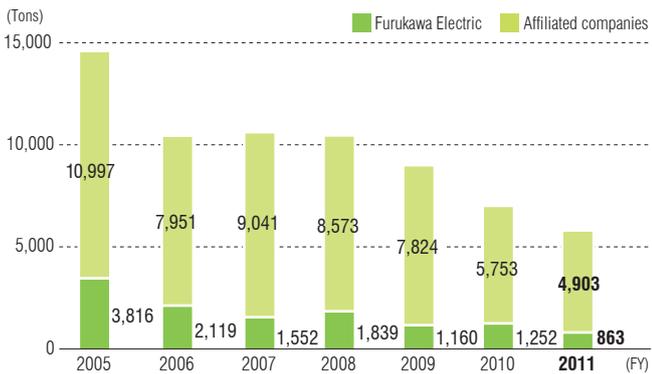


### CO<sub>2</sub> emissions related to transportation (Furukawa Electric only)

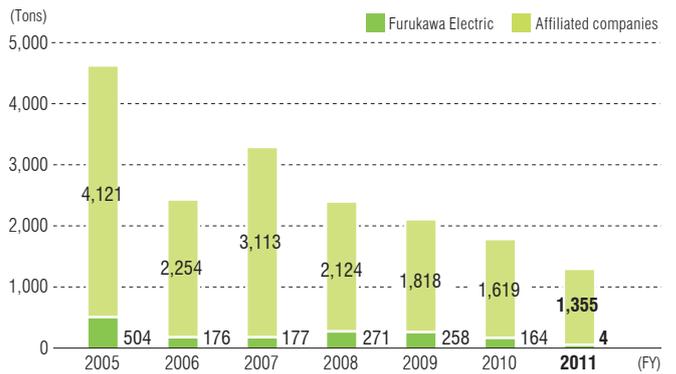


## Zero Emission Activities

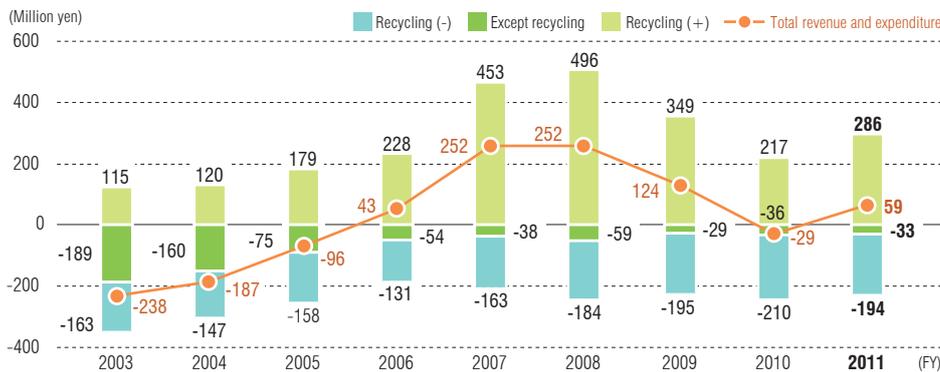
### Non-recycled processed waste volumes



### Direct landfill disposal

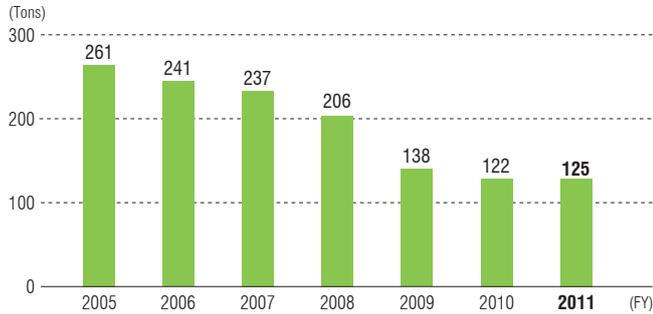


### Waste disposal costs (Furukawa Electric only)



## Chemical Substance Management Activities

### Emissions of volatile organic compounds (For the overall Group, toluene and xylene)



### Emissions of volatile organic compounds (Furukawa Electric only)



Note: Volatile organic compound refers to the 117 such compounds (April 2011 issue) specified by the Electric Wire & Cable Makers' Association.

### PRTR substances

#### Whole group

(Unit: ton)

Substance No.	Substance	Volume handled	Volume released	Volume transferred	Volume neutralized
1	Zinc and its compounds	6.2	0.1	0.6	5.5
31	Antimony and its compounds	289.0	0.0	1.7	287.4
53	Ethylbenzene	32.3	8.0	0.5	23.8
71	Ferric chlorides	80.1	6.6	62.1	11.4
75	Cadmium and its compounds	30.4	0.0	0.9	29.5
80	Xylene	211.9	24.9	5.9	181.0
82	Silver and its water-soluble compounds	41.3	0.0	1.6	39.8
86	Cresol	412.0	0.1	0.1	411.8
87	Chromium and trivalent chromium compounds	166.6	0.0	1.4	165.2
88	Hexavalent chromium compounds	23.8	0.0	8.1	15.8
132	Cobalt and its compounds	1.9	0.0	0.1	1.9
144	Inorganic cyanide compounds	18.9	0.1	1.4	17.4
213	N,N-dimethylacetamide	269.8	0.0	0.0	269.8
232	N,N-dimethylformamide	71.2	0.0	0.0	71.2
255	Decabromodiphenyl ether	127.1	0.0	0.8	126.3
272	Copper salts (water-soluble)	15,583.3	0.2	50.9	15,532.2
281	Trichloroethylene	2.6	2.6	0.0	0.0
296	1,2,4-trimethylbenzene	215.1	51.5	2.7	161.0
297	1,3,5-trimethylbenzene	38.7	18.9	1.2	18.6
300	Toluene	315.0	100.7	78.7	135.6
302	Naphthalin	2.5	0.0	0.5	2.0
304	Lead	1.5	0.0	0.0	1.5
305	Lead compounds	39,372.1	0.2	3.3	39,368.7
308	Nickel	514.5	0.0	0.9	513.6
309	Nickel compounds	85.9	0.0	12.2	73.6
332	Arsenic and its inorganic compounds	16.5	0.0	0.1	16.4
333	Hydrazine	11.9	0.0	0.0	11.9
349	Phenol	317.6	0.0	0.2	317.4
355	Bis (2-ethylhexyl) phthalate	364.4	0.6	0.2	363.5
374	Hydrogen fluoride and its water-soluble compounds	34.8	1.2	15.3	18.3
384	N-propyl bromide	1.4	1.2	0.0	0.1
392	N-hexane	2.5	0.1	0.0	2.4
394	Beryllium and its compounds	0.8	0.0	0.0	0.8
405	Boron and its compounds	7.6	1.2	0.2	6.3
408	Poly (oxyethylene) octylphenyl ether	1.4	0.0	1.4	0.0
410	Poly (oxyethylene) nonylphenyl ether	1.6	0.0	1.4	0.2
412	Manganese and its compounds	1,542.5	0.0	19.6	1,523.0
438	Methylnaphthalene	23.9	0.9	0.0	23.0
453	Molybdenum and its compounds	1.2	0.0	0.2	1.0
<b>Total</b>		<b>60,241.8</b>	<b>219.0</b>	<b>274.1</b>	<b>59,748.7</b>

Note: This list is target for substances with a transaction volume of 1 tons or more (0.5 tons or more for Class 1 Designated Chemical Substances).

#### Furukawa Electric only

(Unit: ton)

Substance No.	Substance	Volume handled	Volume released	Volume transferred	Volume neutralized
1	Zinc and its compounds	6.1	0.1	0.6	5.5
31	Antimony and its compounds	54.3	0.0	1.1	53.1
53	Ethylbenzene	9.1	0.0	0.0	9.1
80	Xylene	20.0	8.2	1.1	10.7
82	Silver and its water-soluble compounds	36.2	0.0	0.0	36.2
86	Cresol	208.7	0.0	0.1	208.6
88	Hexavalent chromium compounds	10.1	0.0	8.0	2.2
144	Inorganic cyanide compounds	14.2	0.0	0.0	14.2
213	N,N-dimethylacetamide	148.3	0.0	0.0	148.3
232	N,N-dimethylformamide	33.8	0.0	0.0	33.8
255	Decabromodiphenyl ether	2.8	0.0	0.6	2.2
272	Copper salts (water-soluble)	15,574.9	0.2	48.6	15,526.2
297	1,3,5-trimethylbenzene	6.9	0.0	0.0	6.9
300	Toluene	243.8	90.9	56.3	96.6
304	Lead	1.5	0.0	0.0	1.5
305	Lead compounds	4.7	0.0	0.2	4.5
308	Nickel	3.2	0.0	0.0	3.2
309	Nickel compounds	23.6	0.0	1.3	22.3
332	Arsenic and its inorganic compounds	1.1	0.0	0.1	1.0
333	Hydrazine	9.5	0.0	0.0	9.5
349	Phenol	159.8	0.0	0.1	159.6
355	Bis (2-ethylhexyl) phthalate	2.6	0.6	0.1	1.8
374	Hydrogen fluoride and its water-soluble compounds	3.2	0.0	3.2	0.0
405	Boron compounds	5.2	1.0	0.2	4.1
453	Molybdenum and its compounds	1.2	0.0	0.2	1.0
<b>Total</b>		<b>16,584.7</b>	<b>101.1</b>	<b>121.6</b>	<b>16,362.0</b>

Note: This list is target for substances with a transaction volume of 1 tons or more (0.5 tons or more for Class 1 Designated Chemical Substances).

## Environmental Accounting

Environmental accounting for the Furukawa Electric Group during fiscal 2011 is indicated below.

All data has been compiled in accordance with the Environmental Accounting Guidelines (2005 edition) published by the Ministry of the Environment.

Environmental conservation costs for the entire group during fiscal 2011 came to about ¥6.6 billion in expenses and ¥2.2 billion in investment.

Compared with the preceding year, Furukawa Electric reduced its expenses by ¥0.7 billion and its investment by ¥0.6 billion. The energy cost increased about ¥2.1 billion for the group, owing to a rise in the total energy input.

### Environmental conservation costs

(Unit: million yen)

Category	Key activity and the outcome	Furukawa Electric		Affiliated companies
		Total costs	Year on year	Total costs
(1) Business area costs	Pollution prevention (air pollution, etc.), energy conservation, waste disposal, etc.	1,068	-314	2,428
(2) Upstream/downstream costs	Recovery of packaging, drums, etc.	516	-180	511
(3) Administration costs	Environmental management system auditing, environmental impact monitoring, etc.	380	-13	162
(4) Research and development costs	Development of environmentally sound products, research into alternatives for harmful substances	702	-122	699
(5) Social activity cost	Tree planting, local community cleaning activities, donations, etc.	3	-1	4
(6) Environmental remediation costs	Environmental impact assessments, cleanup of polluted soil, etc.	82	-47	25
<b>Total</b>		<b>2,751</b>	<b>-677</b>	<b>3,829</b>

Note: Year-on-year comparative data regarding the environmental conservation costs for affiliated companies has not been provided due to changes in the scope of affiliated companies (16 companies).

### Environmental conservation benefits

Emissions causing environmental impact	Unit	Furukawa Electric	Affiliated companies
		Reduction	
Volume of industrial waste disposal processed*	tons	389	850
Energy consumption (crude oil equivalent)	1,000 kl	-4	-25
Water consumption	1,000 tons	2,039	-357
Emissions of volatile organic chemical compounds	tons	-6	3
CO <sub>2</sub> emissions	1,000 tons-CO <sub>2</sub>	13	16
SO <sub>x</sub> emissions	tons	5	6
NO <sub>x</sub> emissions	tons	6	39
Soot emissions	tons	1	11

\* Excluding recycled waste

Note: Minus figures indicate an increase.

### Economic benefits associated with environmental conservation activities

(Unit: million yen)

Details of benefits	Furukawa Electric	Affiliated companies
	Total benefit	
Revenue from recycling	286	439
Reduction in waste disposal costs	19	-3
Reduction in energy costs	-465	-1,655
Reduction in water purchase costs	-24	-7
<b>Total</b>	<b>-184</b>	<b>-1,226</b>

Note: Minus figures indicate an increase.

### Investment and research costs

(Unit: million yen)

Investment and research costs	Furukawa Electric	Affiliated companies
	Total costs	
Environment-related investment	256	1,896
Total investment	11,768	5,457
Total research costs	9,000	4,591

### Environmental conservation costs (Furukawa Electric)

(Million yen)

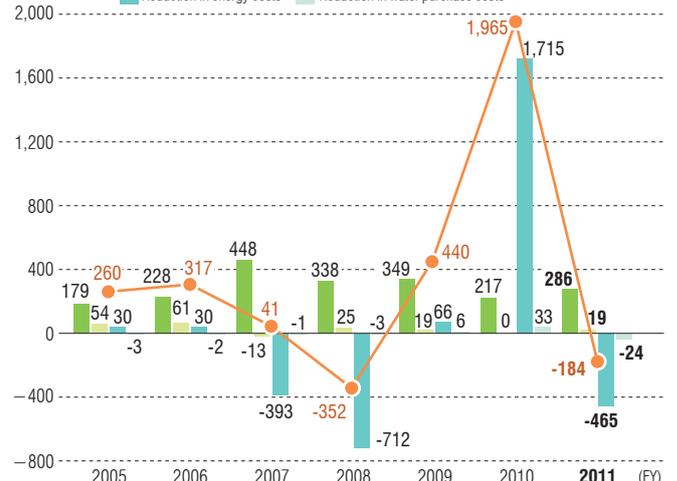
■ Business area costs    ■ Upstream/downstream costs    ■ Administration costs  
■ Research and development costs    ■ Social activity costs    ■ Environmental remediation costs



### Economic benefits (Furukawa Electric)

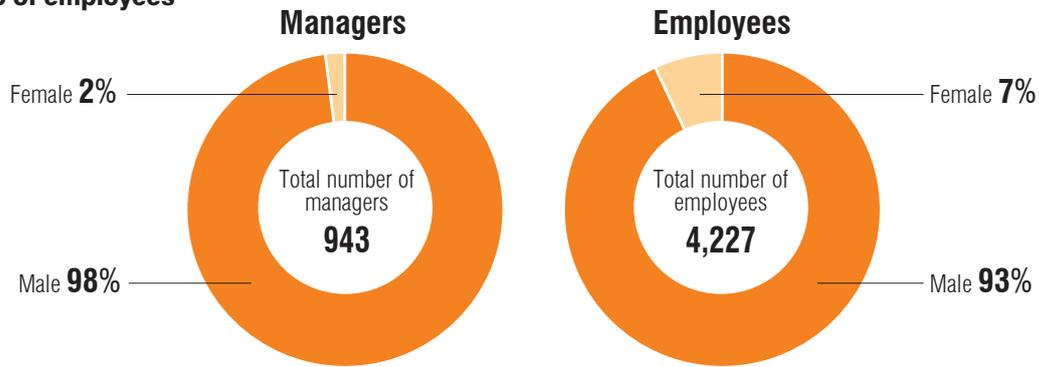
(Million yen)

■ Revenue from recycling    ■ Reduction in waste disposal costs    ● Total revenue and expenditure  
■ Reduction in energy costs    ■ Reduction in water purchase costs



**Relations with Our Employees** (Furukawa Electric only)

**Gender ratio of employees**



**Recruitment figures by gender**

		Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011	Fiscal 2012
Specialized staff	Male	81	84	79	73	66
	Female	16	17	13	9	12
	<b>Total</b>	<b>97</b>	<b>101</b>	<b>92</b>	<b>82</b>	<b>78</b>
	Foreign nationals	1	1	4	4	2
Professional staff	Male	49	86	44	15	21
	Female	1	1	0	0	1
	<b>Total</b>	<b>50</b>	<b>87</b>	<b>44</b>	<b>15</b>	<b>22</b>

**Overtime**

(Unit: Average hours per month)

	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011
Direct work	28.56	27.62	21.62	23.36	24.15
Indirect work	21.11	20.58	18.44	14.06	17.03
<b>Average</b>	<b>24.95</b>	<b>23.64</b>	<b>20.10</b>	<b>17.75</b>	<b>19.72</b>

**Regular annual leave**

Item	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011	Unit
Days carried over per person (A)	23.0	22.8	22.5	22.0	21.5	Days
Days granted per person (B)	24.2	24.1	24.0	23.9	23.5	Days
Days acquired per person (C)	11.1	12.1	13.6	13.3	12.9	Days
Acquisition rate (C÷B)	45.9	50.2	56.7	55.6	54.9	%

Notes: Fiscal 2007 to 2010 leave years are calculated from September 16th to September 15th of the following year.  
The calendar year is used for fiscal 2011, as the leave year was not complete as of the date of publication.

**Maternity/paternity leave**

	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011
Male	24	41	45	39	35
Female	0	5	2	4	4
<b>Total</b>	<b>24</b>	<b>46</b>	<b>47</b>	<b>43</b>	<b>39</b>

**Nursing care leave**

	Fiscal 2007	Fiscal 2008	Fiscal 2009	Fiscal 2010	Fiscal 2011
Male	0	1	0	0	0
Female	1	2	0	0	1
<b>Total</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1</b>

## Awards from Outside Sources

Period	Winning organization	Implementing organization	Subject	
<b>General</b>				
2010	Apr.	Shenyang Furukawa Cable Co., Ltd.	Shenyang Municipal People's Government	Advanced Company Award (excellence across the enterprise)
	May	Furukawa Mexico S.A.	Estado de Baja California	Socially Responsible Employer Award (for employers with a high total score in the social benevolence categories of education, safety and hiring)
		Minda Furukawa	Maruti Suzuki India	Overall Excellence-Silvershield, Incoming Quality Certificate, Focus Model Cost Reduction Certificate and Best Delivery-Shield
	Aug.	Furukawa Industrial S.A.	TELEBRASIL	Mr. Foed Shaikhzadeh received The Communicative Person of the Year
Sep.	Furukawa Industrial S.A.	Telecom Almanac Co.	Prominent Wire and Cable Company of the Year 	
<b>Quality and Costs, etc.</b>				
2010	Apr.	Furukawa Electric Co., Ltd.	Daihatsu Motor Co., Ltd.	Superior Quality Award
	May	Furukawa Elec Co., Ltd., Chubu branch	Toyota Industries Corporation L&F Company	Received Superior Quality Award for two consecutive years
	Oct.	Furukawa Industrial S.A.	CRN Magazine	The 11th Distributors' Choice of Champion Award for the Infrastructure for both quality and relationship 
2011	Jan.	Furukawa Electric Co., Ltd.	Honda Motor Co., Ltd.	Superior Appreciation Award (for Quality) for two consecutive years
	Feb.	Minda Furukawa	Nissan Motor India Private Ltd.	Cost Performance Award (promotion of localized procurement)
		Furukawa Electric Co., Ltd.	Mazda Motor Corporation	VEVA Award for Continuously Offering Proposals for 30 consecutive years
		Changchun Furukawa Automobile Harness Co., Ltd.	Sichuan FAW Toyota Motor Co. Ltd.	Superior Quality Award
		Tianjin Jinhe Electric Engineering Co., Ltd.	Tianjin FAW Toyota Motor Co.,Ltd.	Diligence Award (Cost)
Permintex Furukawa Malaysia	Modenas	Best Performance Vendor Award		
<b>Safety</b>				
2010	Mar.	Changchun Furukawa Automobile Harness Co., Ltd	Tianjin FAW Toyota Motor Co., Ltd. Tianjin FAW Toyota Engine Co., Ltd. FAW Toyota (Changchun) Engine Co., Ltd. Sichuan FAW Toyota Motor Co., Ltd. SFTM Changchun Fengyue Co., Ltd.	2010 (Safety) Achievement Award
	Jun.	Furukawa Mexico S.A.	Estado de Baja California	Safety Company Recognition Award (Safety Commendation), Human Development Recognition Award (Education for All Employees)
<b>Environment</b>				
2010	Aug.	Furukawa Industrial S.A.	Expresso Publisher	Green Wave Award for recycling
	Nov.	Furukawa Mexico S.A.	Estado de Baja California	Environmental High Performance Award
<b>Social Contribution</b>				
2010	Dec.	Furukawa Industrial S.A.	SODEXO	Elected as a finalist for the Program for Preparing Children for the Future
<b>Papers</b>				
2010	May	Furukawa Electric Co., Ltd.	The Japan Society for Technology of Plasticity	JSTP Best Paper Award: Asymmetric Rolling Process Design Using Crystal Plasticity Multiscale Analysis
	Jun.	Furukawa Electric Co., Ltd.	Japan Railway Electrical Engineering Association	Engineering Association Award: Development of Copper Thermite Weidi Improved Bond Mounting Metal Fitting
	Nov.	Furukawa Electric Co., Ltd.	Japan Research Institute for Copper & Copper Alloy Fabricating Technology	The 44th Paper Award: Effect of carbon addition on formation of constituents in Cu-Ni-Si-Ti alloys
2011	Mar.	Tsuchida Yukihiro Fitel Photonics Laboratory, Furukawa Electric Co., Ltd.	The Institute of Electronics, Information and Communication Engineers	Academic Award: A Study on Large-mode-area Holey Fibers with Low Micro-bending Losses, Study on dispersion managed transmission lines with LMA holey fibers