JFE Group
CSR REPORT 2015

Environmental Data Book

This book contains supplemental information and data relating to environmental measures for three JFE Group companies, as well as information and data relating to the JFE Group's recycling business.

Please read this book in conjunction with the "JFE Group CSR Report 2015" to gain a more comprehensive understanding of JFE's environmental initiatives.

CONTENTS

JFE

● Scope of Report

Reporting Period

FY2014 (April 1, 2014 to March 31, 2015)

Organizations Covered

1. JFE Holdings, Inc. and its operating companies:
- JFE Steel Corporation
- JFE Engineering Corporation
- JFE Shoji Trade Corporation

2. The following items include data from "Major consolidated subsidiaries and equity-method affiliates Included in the Scope of Reporting" listed below.

[Environmental data aggregation scope]
- Status of ISO 14001 certification
- CO_2 emissions
- Energy consumption (JFE Steel Group, JFE Engineering Group)
- Electricity consumption (JFE Shoji Trade Group)

• JFE Steel Group

JFE Steel Corporation and 31 consolidated subsidiaries and 2 equity method affiliates (Total: 34 companies)

27 domestic companies

JFE Mineral Company, Ltd., Mizushima Ferroalloy Co., Ltd., JFE Material Co., Ltd., Chiba Riverment and Cement Corp., Mizushima Riverment Corp., JFE Precision Co., Ltd., JFE Plastic Resource Corporation, JFE Bars & Shapes Corp., JFE Metal Products & Engineering Inc., JFE Galvanizing & Coating Co., Ltd., JFE Container Co., Ltd., JFE Welded Pipe Manufacturing Co., Ltd., JFE Steel Pipe Co., Ltd., Galvatex Corp., JFE Pipe Fitting Mfg. Co., Ltd., JFE Techno-wire Corp., JFE Kozai Corp., JFE Electrical Steel Co., Ltd., JFE Logistics Corp., JFE Chemical Corporation, JFE Life Corporation, Gecoss Corporation, JFE Rockfiber Corporation, JFE Kenzai Fence Co., Ltd., J-Logitec Co., Ltd., KP Sheet Co., Ltd., JFE Mag Powder Co., Ltd.

6 overseas companies

California Steel Industries*, Nova Era Silicon, Guangzhou JFE Steel Sheet Company Ltd., JFE Steel Galvanizing (Thailand) Ltd., Thai Coated Steel Sheet, Philippine Sinter Corporation

* Equity method affiliates

• JFE Engineering Group

JFE Engineering Corporation and 11 domestic consolidated subsidiaries (Total: 12 companies)

Asukasoken Co., Ltd., Japan Pipeline Engineering Corporation, JFE Kankyo Corporation, JAPAN Recycling Corporation, Recycling Management Japan, Inc., JFE Urban Recycle Corporation, Kitanippon Industrial Co., Ltd., JFE Technos Corporation, Fuji Kako Co., Ltd., Tohoku Dock Tekko K.K., JFE Rail Link Co., Ltd.

• JFE Shoji Trade Group

JFE Shoji Trade Corporation and 32 domestic and overseas consolidated subsidiaries (steel processing companies) (Total: 33 companies)

18 domestic subsidiaries

JFE Shoji Osaka Tinplate Center Corporation, JFE Shoji Coil Center Corporation, JFE Shoji Kohnan Steel Center Co., Ltd., Aichi Kanzai Kogyo Corporation, Osaka Steel Corporation, Kyusyu-Tech Corporation, Kurashiki Steel Corporation, Shin Nihon Kogyo Corporation, Taisei Kogyo Corporation, Toyo Kinzoku Corporation, Tochigi Shearing Corporation, Naigai Steel Corporation, Nagano Can Corporation, Niigata Steel Corporation, Mizushima Steel Co., Mizushima Metal Products Corporation, Hokuriku Steel Co., Ltd., Hokuriku Kogyo Corporation

14 overseas subsidiaries

Dongguan JFE Shoji Steel Products Co., Ltd., Guangzhou JFE Shoji Steel Products Co., Ltd., Zhejiang JFE Shoji Steel Products Co., Ltd., Jiangsu JFE Shoji Steel Products Co., Ltd., JFE Shoji Steel Philippines, Inc., Central Metals (Thailand) Ltd., Steel Alliance Service Center Co., Ltd., JFE Shoji Steel Vietnam Co., Ltd., JFE Shoji Steel India Private Limited, JFE Shoji Steel Malaysia Sdn. Bhd., P.T. JFE Shoji Steel Indonesia, Vest Inc., JFE Shoji Steel de Mexico, S.A. de C.V., JFE Shoji Steel Hai Phong Co., Ltd.

[Society data aggregation scope]
- Rate of lost work-time injuries and severity rate

- JFE Steel
  JFE Steel Corporation and its affiliates and contractors

- JFE Engineering
  JFE Engineering Corporation and its affiliates and contractors

- JFE Shoji Trade
  JFE Shoji Trade Corporation, all 107 consolidated subsidiaries and its affiliates and contractors

Organizational Profile

JFE Steel Company Profile

JFE Steel Corporation

- Head office: 2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011
- Tel: +81-3-3597-3111
- Net sales (consolidated): 2,873.8 billion yen
- Employees (consolidated): 43,680

Main Works

East Japan Works (Chiba District)

1 Kawasaki-cho, Chuo-ku, Chiba-shi, Chiba 260-0835
Tel: +81-43-262-2024 Fax: +81-43-262-2967
• **Main business**
Production of hot rolled sheets and strips, cold rolled sheets and strips, stainless steel sheets and strips, coated sheets, UOE pipes, iron powders and solvents.

East Japan Works (Keihin District)

1-1 Ohgishima, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-0868
Tel: +81-44-322-1111
• **Main business**
Production of plates, hot rolled sheets, cold rolled sheets, galvanized steel sheets, high-performance steel sheets, seamless steel pipes and welded steel pipes.

Chita Works

1-1 Kawasaki-cho, Handa-shi, Aichi 475-8611
Tel (for general): +81-569-24-2101 Fax: +81-569-24-2022
• **Main business**
Production of machine structural steel pipes, automotive steel pipes, material pipes, general structural steel pipes and steel pipes for plumbing.

West Japan Works (Kurashiki District)

1 Mizushima Kawasaki-dori, Kurashiki-shi, Okayama 721-8511
Tel: +81-86-447-2020 (main)
+81-86-447-2102 (visitor center reception desk)
Fax: +81-86-447-2131
• **Main business**
Production of hot rolled sheets, cold rolled sheets, coated sheets, electrical sheets, plates, sheet piles, H-shapes, rails, bars, wire rods and UOE pipes.

West Japan Works (Fukuyama District)

1 Kokan-cho, Fukuyama-shi, Hiroshima 721-8510
Tel: +81-84-945-3118 Fax: +81-84-945-3808
• **Main business**
Production of hot rolled sheets, cold rolled sheets, coated sheets, electrical sheets, plates, sheet piles, H-shapes, rails, bars, wire rods and UOE pipes.

JFE Engineering Company Profile

JFE Engineering Corporation

- Tokyo head office: Marunouchi Trust Tower North 19F, 1-8-1 Marunouchi, Chiyoda-ku, Tokyo 100-0005
- Tel: +81-3-6212-0800 (main) Fax: +81-3-6212-0802
- Yokohama head office: 2-1, Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-8611
- Tel: +81-45-505-7435 (main) Fax: +81-45-505-8902 Tel: +81-45-505-8953 (PR)
- Net sales (consolidated): 367.3 billion yen
- Employees (consolidated): 8,472

Main Works

Tsurumi Engineering and Manufacturing Center

2-1 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-8611
Tel: +81-45-505-7435 Fax: +81-45-505-8902
• **Main business**
Production of engines, shield tunneling machines, conveyance machines, boilers and turbines, water facilities, iron manufacture facilities.

Tsu Works

1 Kumozu-kokan-cho, Tsu-shi, Mie 514-0393
Tel: +81-59-246-2010 Fax: +81-59-246-2781
• **Main business**
Production of steel structures such as bridges, harbor structures and building steel frames.

JFE Shoji Trade Company Profile

JFE Shoji Trade Corporation

- Tokyo head office: Otemachi Financial City North Tower, 1-9-5 Otemachi, Chiyoda-ku, Tokyo 100-8070
- Tel: +81-3-5203-5053 Fax: +81-3-5203-5289
- Osaka head office: Dojima Avanza, 1-6-20, Dojima, Kita-ku, Osaka 530-8318
- Tel: +81-6-4795-7011 Fax: +81-6-4795-7400
- Net sales (consolidated): 1,934.4 billion yen
- Employees (consolidated): 6,667

JFE Group

Status of ISO 14001 Certification

All JFE Steel and JFE Engineering production sites and JFE Shoji Trade domestic business offices have received certification. The status of certification for Group companies are as follows.

List of ISO 14001 Certified Companies (includes certification limited to certain sites of a company)

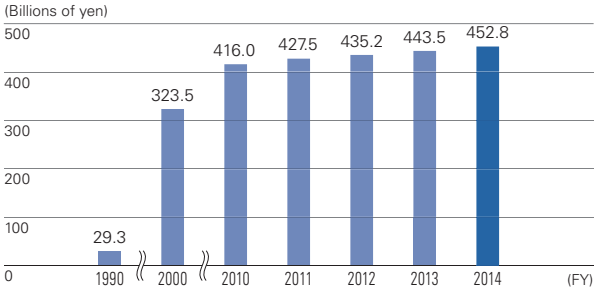
JFE Steel Corporation	All production sites of JFE Steel Corporation and the following 21 consolidated subsidiaries and 1 equity method affiliate (Total: 23 companies)
	JFE Mineral Company, Ltd.
	Mizushima Ferroalloy Co., Ltd.
	JFE Material Co., Ltd.
	JFE Plastic Resource Corporation
	JFE Bars & Shapes Corp.
	JFE Metal Products & Engineering Inc.
	JFE Metal Construction Inc.*1
	JFE Galvanizing & Coating Co., Ltd.
	JFE Container Co., Ltd.
	JFE Welded Pipe Manufacturing Co., Ltd.
	JFE Pipe Fitting Mfg. Co., Ltd.
	River Steel Co., Ltd.*1
	JFE Electrical Steel Co., Ltd.
	Daiwa Kohtai Co.*1
	JFE Mechanical Co., Ltd. *1
	JFE Electrical & Control Systems, Inc.*1
	JFE Logistics Corp.
	JFE Techno-Research Corp.*1
	JFE Chemical Corp.*1
	Thai Coated Steel Sheet Co., Ltd.
	Guangzhou JFE Steel Sheet Company Ltd.*2
	Philippine Sinter Corporation
JFE Engineering Corporation	All production sites of JFE Engineering Corporation and the following 4 consolidated subsidiaries (Total: 5 companies)
	JFE Kankyo Corporation
	Japan Recycling Corporation
	Fuji Kako Co., Ltd.
	Asukasoken Co., Ltd.
JFE Shoji Trade Corporation	All domestic business offices of JFE Shoji Trade Corporation and the following 19 consolidated subsidiaries (Total: 20 companies)
	JFE Shoji Coil Center Corporation
	JFE Shoji Kohnan Steel Center Co., Ltd.
	Taisei Kogyo Corporation
	Toyo Kinzoku Corporation
	Naigai Steel Corporation
	Mizushima Steel Co.
	Mizushima Metal Products Corporation (included in Mizushima Steel Co.)
	Hokuriku Steel Co., Ltd.
	Guangzhou JFE Shoji Steel Products Co., Ltd.
	Dongguan JFE Shoji Steel Products Co., Ltd.
	Zhejiang JFE Shoji Steel Products Co., Ltd.
	Jiangsu JFE Shoji Steel Products Co., Ltd.
	Central Metals (Thailand) Ltd.
	JFE Shoji Steel Philippines, Inc.
	P.T. JFE Shoji Steel Indonesia
	JFE Shoji Steel Malaysia Sdn. Bhd.
	JFE Shoji Steel Hai Phong Co., Ltd.
	JFE Shoji Steel Vietnam Co., Ltd.
	JFE Shoji Steel De Mexico, S.A. de C.V.

*1 Outside the scope of environmental data aggregation
*2 Equity method affiliates

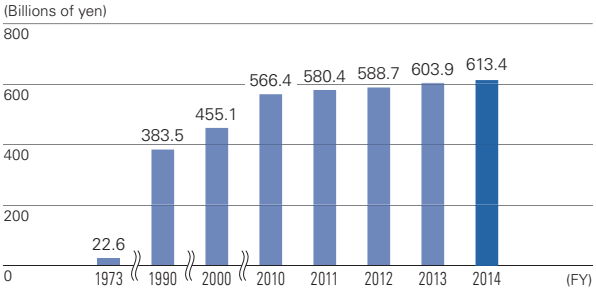
JFE Group's Environmental Accounting

● Environmental Accounting

Cumulative Investment in Energy Saving



Cumulative Investment in Environmental Preservation Measures



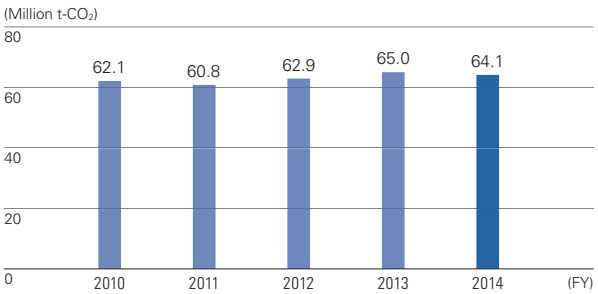
Breakdown of Environmental Costs

Main Items		FY2013		FY2014	
		Investment (million yen)	Cost (million yen)	Investment (million yen)	Cost (million yen)
Management	Monitoring and measurement of impact, EMS expenses and education	100	2,400	10	2,400
Global warming countermeasures	Energy saving and efficient use of energy	8,400	39,200	9,300	37,900
Conservation of natural resources	Recycling industrial water	800	17,600	1,800	18,500
	Recycling and waste management of internally generated materials, etc.	100	4,500	10	5,400
Environmental protection	Air pollution countermeasures	12,300	33,600	6,100	37,300
	Water pollution countermeasures	1,900	9,900	1,500	9,500
	Prevention of soil contamination, noise, vibration and subsidence	10	1,400	70	1,100
Other	Charges, etc.	—	1,400	—	1,400
R&D	Technologies for protecting the environment, saving energy and preventing global warming	4,400	13,100	1,500	12,200
Societal activities	Support for nature conservation and forestation activities, information disclosure, exhibitions and public relations	—	700	—	900
Total		**28,000**	**123,800**	**20,300**	**126,600**

Note: Data covers all investment activities of JFE Steel Corporation and R&D activities of JFE Engineering Corporation.

CO_2 Emissions of the JFE Group

CO_2 Emissions of JFE Group



Breakdown of CO_2 Emissions by Group (FY2014)

JFE Steel Group	JFE Engineering Group	JFE Shoji Trade Group
64,021,000 t-CO_2	72,000 t-CO_2	30,000 t-CO_2
99.84%	0.11%	0.05%

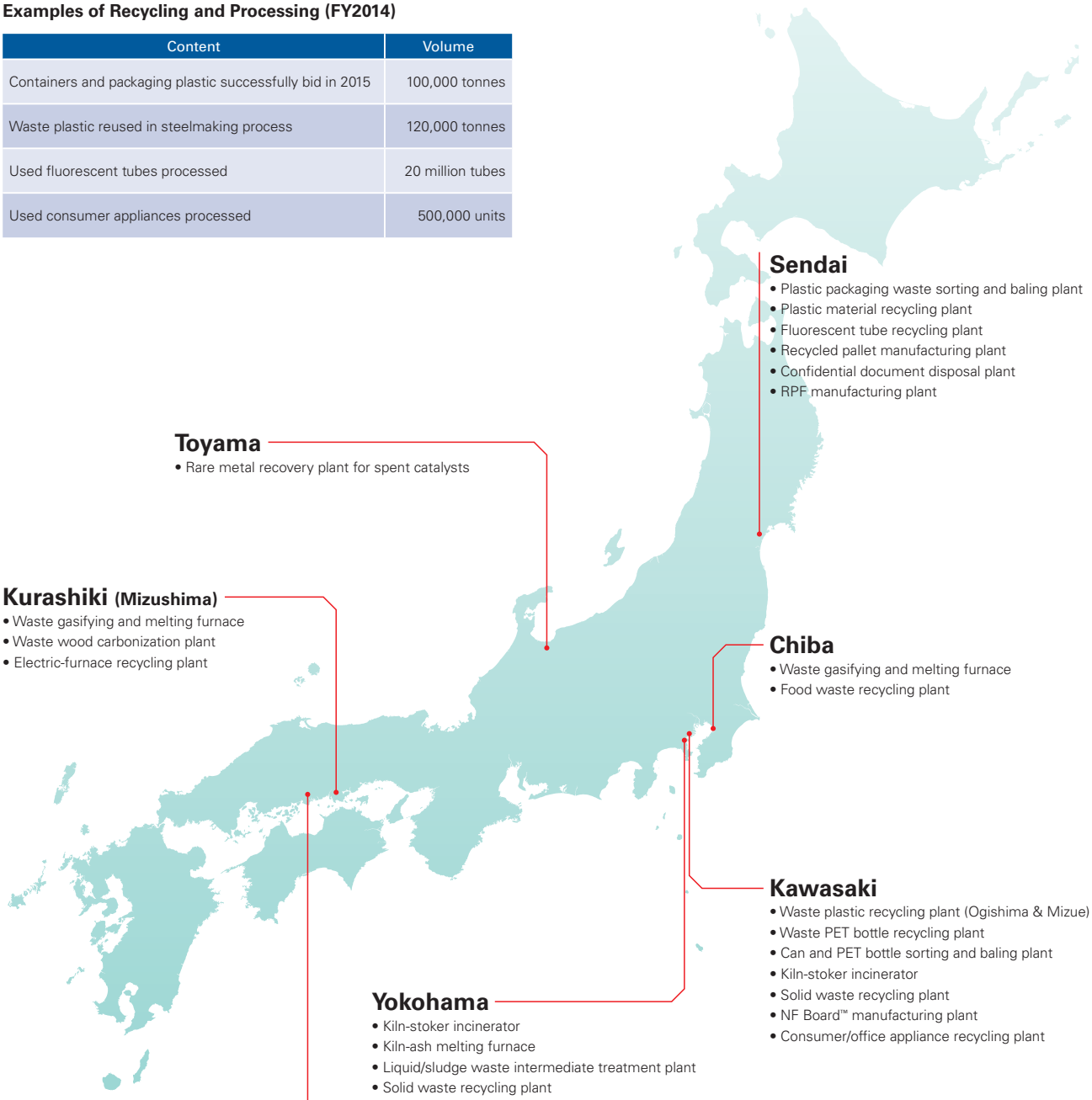
* Aggregation scope: JFE Steel and its 31 major consolidated subsidiaries and 2 equity-method affiliates
JFE Engineering and its 11 major domestic subsidiaries
JFE Shoji Trade and its 32 major consolidated subsidiaries
Total of 79 companies

Note: The scope is expanded and corrected retroactively to the past fiscal years to ensure uniformity across all fiscal years.
CO_2 Emission Factor for Purchased Electricity
- JFE Steel uses the emission factor of the Japan Iron and Steel Federation's Voluntary Action Plan. Note that values for FY2013 were used for FY2014.
- JFE Engineering uses the unadjusted emission factors of each electric power company for each fiscal year.
- JFE Steel Group companies, excluding JFE Steel, and JFE Shoji Trade Group companies use the CO_2 equivalent of 0.000550 (t-CO_2/kWh) for the FY2012 unadjusted emission factors of each electric power company.
- Overseas: based on each country's GHG protocol

JFE Group Recycling Businesses

Examples of Recycling and Processing (FY2014)

Content	Volume
Containers and packaging plastic successfully bid in 2015	100,000 tonnes
Waste plastic reused in steelmaking process	120,000 tonnes
Used fluorescent tubes processed	20 million tubes
Used consumer appliances processed	500,000 units



Sendai
- Plastic packaging waste sorting and baling plant
- Plastic material recycling plant
- Fluorescent tube recycling plant
- Recycled pallet manufacturing plant
- Confidential document disposal plant
- RPF manufacturing plant

Toyama
- Rare metal recovery plant for spent catalysts

Kurashiki (Mizushima)
- Waste gasifying and melting furnace
- Waste wood carbonization plant
- Electric-furnace recycling plant

Chiba
- Waste gasifying and melting furnace
- Food waste recycling plant

Kawasaki
- Waste plastic recycling plant (Ogishima & Mizue)
- Waste PET bottle recycling plant
- Can and PET bottle sorting and baling plant
- Kiln-stoker incinerator
- Solid waste recycling plant
- NF Board™ manufacturing plant
- Consumer/office appliance recycling plant

Yokohama
- Kiln-stoker incinerator
- Kiln-ash melting furnace
- Liquid/sludge waste intermediate treatment plant
- Solid waste recycling plant
- Fluorescent tube recycling plant
- Plastic packaging waste sorting and baling plant
- Dry cell and battery recycling plant

Fukuyama
- Waste plastic recycling plant
- RPF manufacturing plant
- Fukuyama plastic material recycling plant
- Fluorescent tube recycling plant
- Kiln incinerator
- Leachate-controlled landfill
- Liquid waste neutralization plant
- Refuse-derived fuel (RDF) gasifying power generation plant (commissioned operation)

JFE Group's Recycling Business List

JFE Group's Recycling Business List

District	Name of the Companies, Plants and Offices	Facilities	Address
Sendai	Shinko Recycle Corporation		
	Head Office Plant	Plastic packaging waste sorting and baling plant	1-20-5 Minato, Miyagino-ku, Sendai-shi, Miyagi
		Plastic material recycling plant	Same as above
		Fluorescent tube recycling plant	Same as above
		Recycled pallet manufacturing plant	Same as above
		Confidential document disposal plant	Same as above
	Rifu Plant	RPF manufacturing plant	6-5-14 Shirakashi-dai, Rifu-cho, Miyagi
Chiba	Japan Recycling Corporation Co., Ltd.		
	Chiba Biogas Center	Waste gasifying and melting furnace	1 Kawasaki-cho, Chuo-ku, Chiba-shi, Chiba
	Chiba Recycle Center	Food waste recycling plant	Same as above
Kawasaki	JFE Kankyo Corporation		
	Ohgishima Raw Materials Plant	Waste plastic recycling plant	10 Ohgishima, Kawasaki-ku, Kawasaki-shi, Kanagawa
	Kawasaki PET Bottle Recycling Plant	Waste PET bottle recycling plant	699-38 Mizue-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa
	Kawasaki Can and PET Bottle Baling Plant	Can and PET bottle sorting and bailing plant	699-58 Mizue-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa
	Kawasaki Eco Clean (Incinerator)	Kiln-stoker type incinerator	5-73 Ohgi-machi, Kawasaki-ku, Kawasaki-shi, Kanagawa, and others
		Solid waste recycling plant	Same as above
	JFE Plastic Resource Corporation		
	Mizue recycling plant	Waste plastic recycling plant	679-23 Mizue-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa, and others
	NF Board™ plant	NF Board™ manufacturing plant	5-1 Mizue-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa
	JFE Urban Recycle Corporation		
	Home appliance recycling plant	Consumer appliance/OA recycling plant	6-1 Mizue-cho, Kawasaki-ku, Kawasaki-shi, Kanagawa
Yokohama	JFE Kankyo Corporation		
	Yokohama Eco Clean (Incinerator)	Kiln-stoker type incinerator	2-1 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa, and others
		Kiln type ash melting furnace	Same as above
	Chemical Plant	Liquid/sludge waste intermediate treatment plant	3-1 Benten-cho, Tsurumi-ku, Yokohama-shi, Kanagawa
	Yokohama Clean Resource Recycling Plant	Solid waste recycling plant	2-1-5 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa
	Fluorescent Lamp/Battery Recycling Plant	Fluorescent tube recycling plant	2-1-8 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa
	Yokohama Plastics Recycling Plant	Plastic packaging waste sorting and baling plant	2-1-8 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa
	Suehiro Plant	Dry cell and battery recycling plant	2-1-8 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa
	JFE Kankyo Logitech Corporation		
	Kanazawa Recycling Center	Solid waste recycling plant	1-14-5 Fukuura, Kanazawa-ku, Yokohama-shi, Kanagawa
Kurashiki (Mizushima)	Mizushima Eco-Works Co., Ltd.	Waste gasifying and melting furnace	1-14-5 Mizushimakawasaki-dori, Kurashiki-shi, Okayama
	Recycling Management Japan, Inc.		
	Okayama Wood Carbonization Facilities	Waste wood carbonization plant	1-14-1 Mizushimakawasaki-dori, Kurashiki-shi, Okayama
	JFE Bars & Shaps Corporation		
	DC electric arc furnace	Electric-furnace recycling plant	1-5-2 Mizushimakawasaki-dori, Kurashiki-shi, Okayama, and others
Fukuyama	JFE Plastic Resource Corporation		
	Fukuyama recycling plant	Waste plastic recycling plant	113 Minoki-cho, Fukuyama-shi, Hiroshima, and others
	JFE Kankyo Corporation		
	Fukuyama RPF Production Plant	RPF manufacturing plant	115-1 Minoki-cho, Fukuyama-shi, Hiroshima
	Fukuyama Plastic Material Recycling Plant	Plastic materials recycling plant	Same as above
	Fukuyama Fluorescent Lamp Recycling Plant	Fluorescent tube recycling plant	Same as above
	Fukuyama Incinerator	Kiln type incinerator	1 Kokan-cho, Fukuyama-shi, Hiroshima
		Leachate controlled landfill	Same as above
		Liquid waste neutralization plant	Same as above
	Fukuyama Recycle Power Corporation	Refuse-derived fuel (RDF) gasifying power generation plant (commissioned operation)	107-8 Minoki-cho, Fukuyama-shi, Hiroshima
Toyama	JFE Material Co., Ltd.	Rare metal recovery plant for spent catalysts	2-9-38 Shosei-machi, Imizu-shi, Toyama

Main Environmental Targets and Results

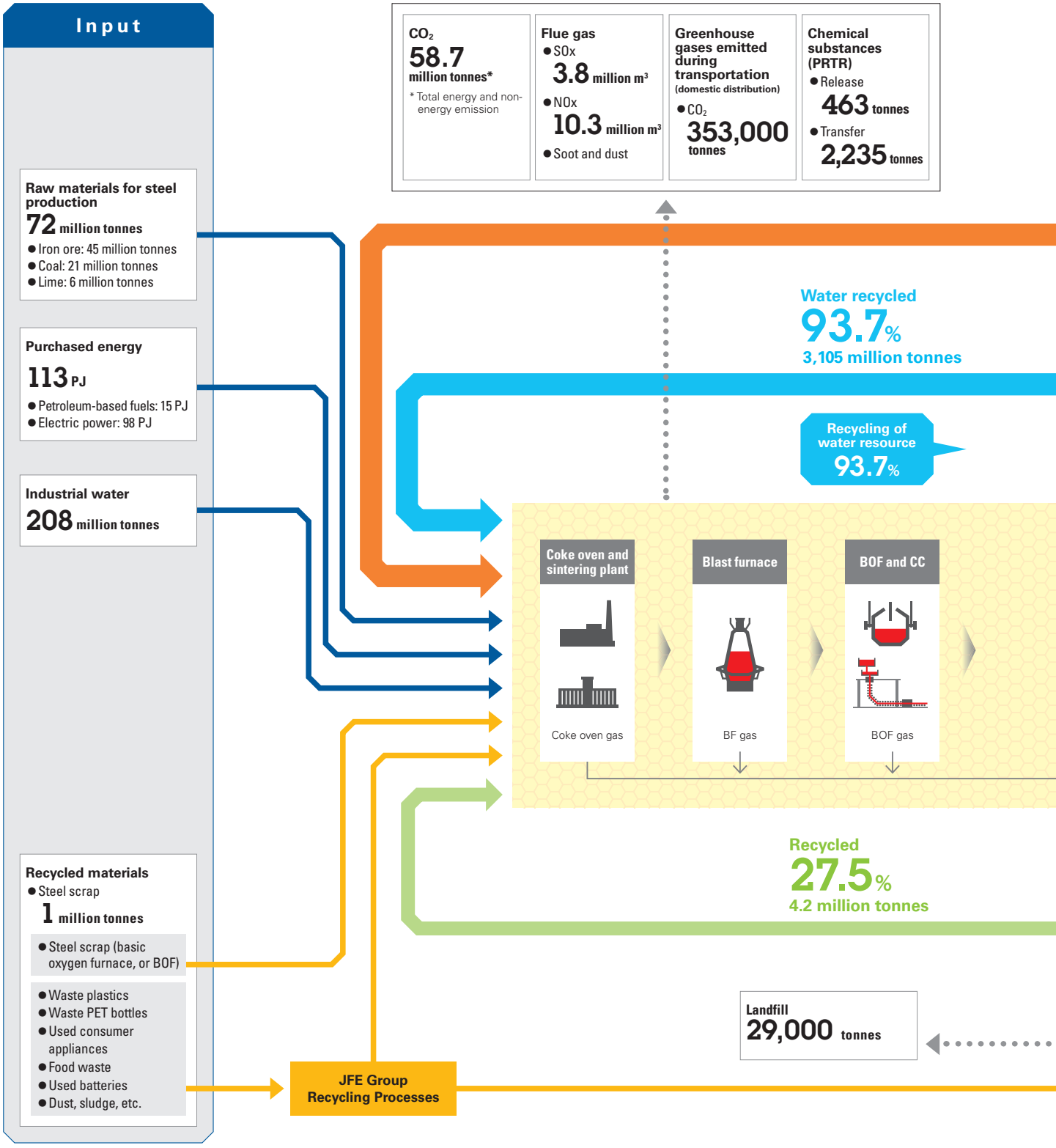
		FY2014 Targets
Management	JFE Steel	• Continue to improve environmental management systems, including in Group companies
		• Voluntary activities for environmental preservation
	JFE Engineering	• Enhancement of Group-wide compliance
	JFE Shoji Trade	• Enhancement of Group-wide compliance
Global Warming Prevention	JFE Steel	• Continue global-warming measures under the Low-Carbon Society Action Plan • Low-Carbon Society Action Plan targets (according to the Japan Iron and Steel Federation) • Reduce CO_2 emissions by five million tonnes in 2020 compared to business as usual
	JFE Engineering	• Reduce CO_2 emissions and other environmental loads through products and services: Establish targets for the R&D, planning and design sections of each division and implement environmentally friendly initiatives including prevention of global warming
		• CO_2 emissions from business activities Reduce unit energy consumption by an average of 1% for 5 years in accordance with the Energy Saving Act (equivalent to or exceeding the voluntary action plan targets of the Japan Society of Industrial Machinery Manufacturers)
	JFE Shoji Trade	• Reduce electricity consumption
		• Reduce copy paper usage
Pollution Prevention	JFE Steel	• Cut dioxins emissions to less than 5.5 g-TEQ per year on average between FY2012 and FY2016 under a new national reduction plan
Resource Recycling	JFE Steel	• Reduce dust and sludge and promote recycling
	JFE Engineering	Set targets for each division relevant to the nature of construction work at construction sites. Targets are to be set based on the following minimum values: • Recycle at least 99.5% of rubble • Recycle at least 95.0% of sludge • Recycle at least 85.0% of industrial wastes (excluding rubble and sludge)

○: Target exceeded △: Target partially achieved ×: Target not achieved

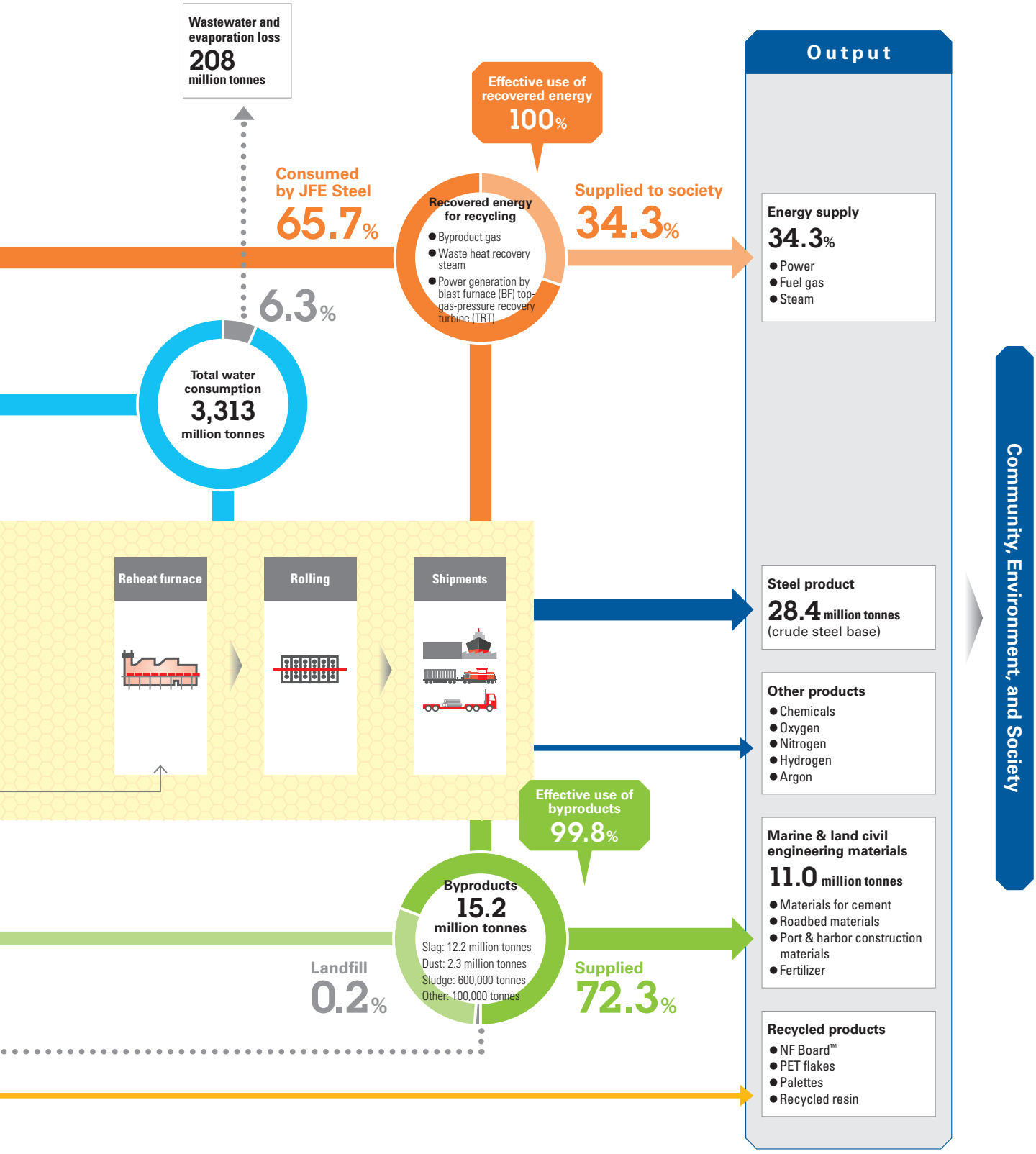
	FY2014 Results	Evaluation	FY2015 Targets
	• Group Liaison Committee met twice to discuss compliance with environmental laws and regulations • Uniformly confirmed and followed up on legal compliance	○	• Continue to improve environmental management systems, including in Group companies
	• Conducted environmental management training for new managers (three times for 73 participants) • Conducted environmental auditing at all of JFE Steel's manufacturing sites and 26 offices of Group companies	○	• Voluntary activities for environmental preservation
	• Conducted environmental inspections at all construction sites • Conducted a Group-wide environmental compliance audit	○	• Conduct environmental inspections at all construction sites • Enhancement of Group-wide compliance
	• Self-confirmed legal compliance • Conducted an environmental audit of Group companies	○	• Continue to self-confirm legal compliance
	• Implemented the Eco-Processes, Eco-Solutions, Eco-Products ("Three Ecos") initiative and COURSE 50 program for developing innovative steelmaking processes	○	• Continue global-warming measures under the Low-Carbon Society Action Plan • Low-Carbon Society Action Plan targets (according to the Japan Iron and Steel Federation) • Reduce CO_2 emissions by five million tonnes in 2020 compared to business as usual
	• Achieved 59 targets established Company-wide	○	• Reduce CO_2 emissions and other environmental loads through products and services, including through R&D, planning and design targets in each division
	• CO_2 emissions increased an average 0.7% per year from FY2010 to FY2014	△	—
	• Reduced electricity consumption by 50% compared to FY2001	○	• Maintain measures for reducing electricity consumption
	• Reduced copy paper usage by 6.0% compared to FY2001	○	• Maintain measures for reducing copy paper usage
	• Achieved emissions below 5.6 g-TEQ per year (5-year average)	—	• Cut dioxins emissions to less than 5.5 g-TEQ per year on average between FY2012 and FY2016 under a new reduction plan in Japan
	• Kurashiki: Reduced volume of waste by turning oil-containing sludge into a valuable resource Reduction: FY2013: 800 tonnes → FY2014: 2,100 tonnes	○	• Reduce dust and sludge and promote recycling efforts • Kurashiki: Reduce volume of waste from 2,100 tonnes in FY2014 to 3,000 tonnes in FY2015
	Achieved all targets for 7 divisions involved in construction work (total for construction work at all divisions) • Recycled 99.6% of rubble • Recycled 100.0% of sludge • Recycled 93.3% of industrial wastes (excluding rubble and sludge) • Total volume of industrial waste: 109,072 tonnes	○	Set targets for each division relevant to the nature of work at construction sites. Targets are to be set based on the following minimum values: • Recycle at least 99.5% of rubble • Recycle at least 95.0% of sludge • Recycle at least 85.0% of industrial wastes (excluding rubble and sludge)

JFE Steel

Materials Flow

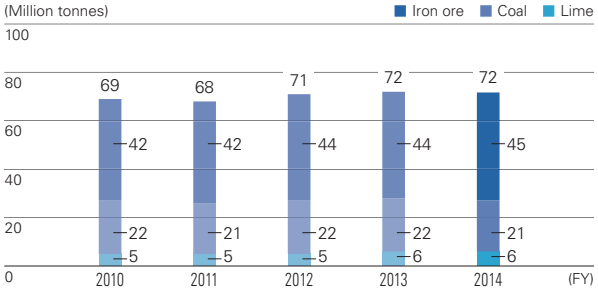


JFE Steel is striving to reduce environmental loads while using resources more effectively in its steelmaking processes. The company recycles 93.7% of the water it uses for production and uses 99.8% of the byproducts, such as iron-steel slag. Also, 100% of the byproduct gas generated during production is reused as fuel for reheating slabs, generating power for internal use and supplying power to the public.



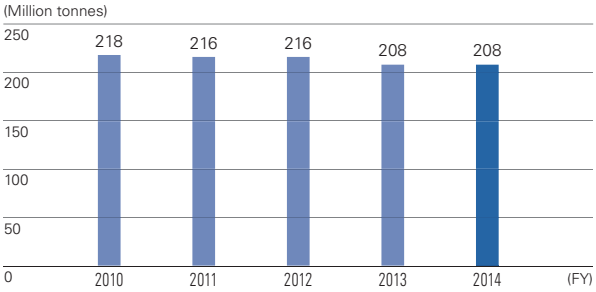
Input Materials

Materials for Steel Production

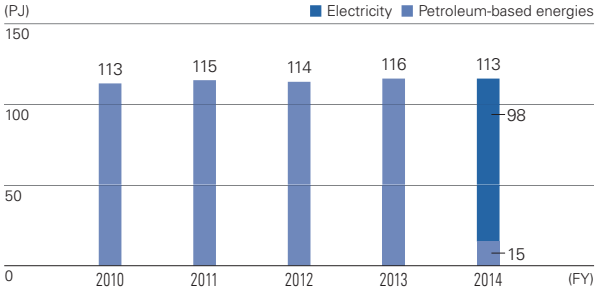


Note: Values for past fiscal years have been recalculated retroactively for improved accuracy.

Industrial Water

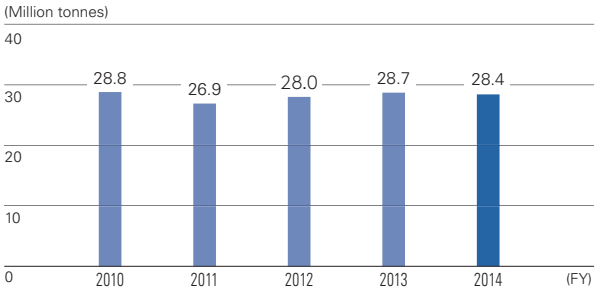


Purchased Energy (Electricity and Petroleum-based Energies)

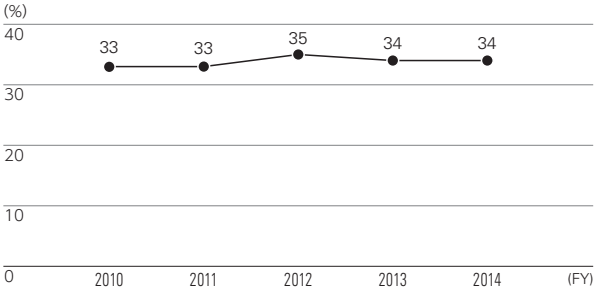


Output Products

Steel Products



Energy Supply Rate for Recovered Energy



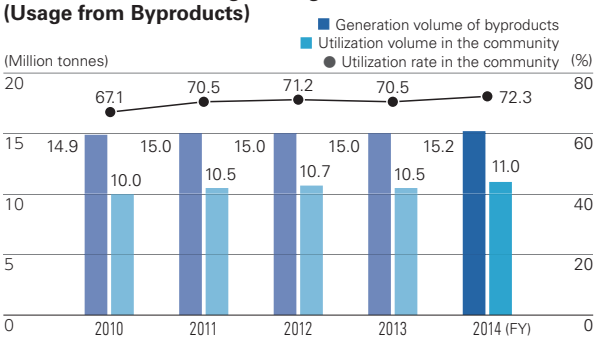
Byproducts

● NF Board™ ● PET Flakes ● Pallet ● Recycled Resin

Other Products

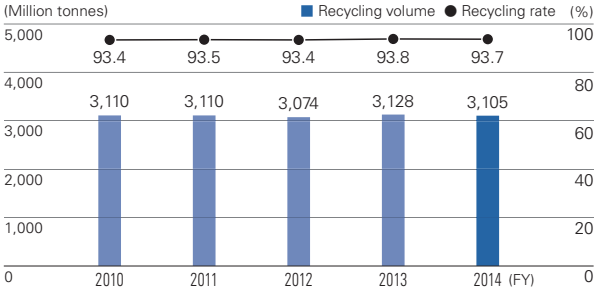
● Chemicals ● Nitrogen ● Argon ● Oxygen ● Hydrogen

Marine & Land Civil Engineering Materials (Usage from Byproducts)

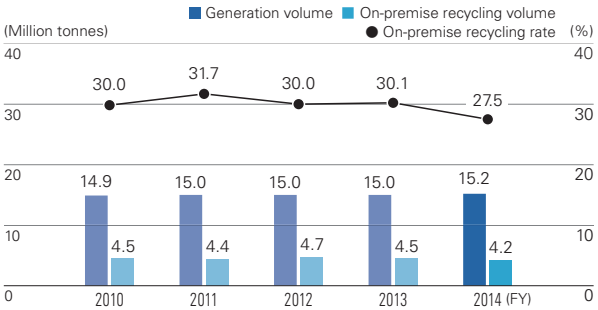


Recycled Resources

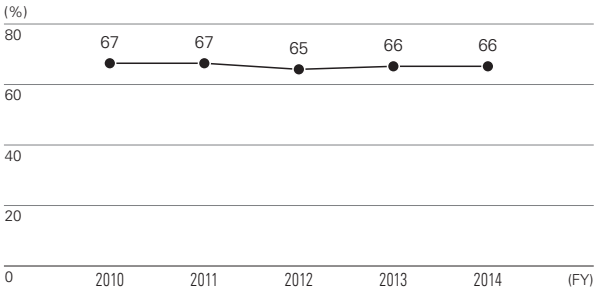
Recycled Water



Byproducts



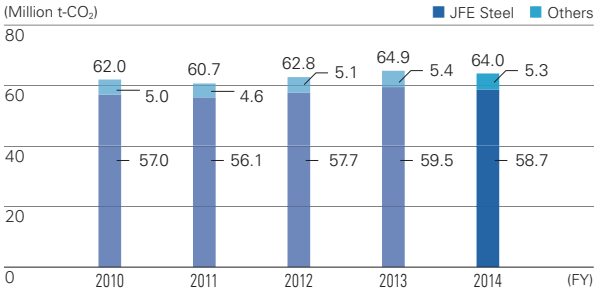
Recycling Rate for Recovered Energy



CO_2 Emissions and Energy Consumption

● Status of JFE Steel Group

CO_2 Emissions of JFE Steel Group



- The scope is expanded and corrected retroactively to the past fiscal years to ensure uniformity across all fiscal years.

* Values cover JFE Steel (energy-derived and non-energy-derived emissions) and 31 domestic and overseas subsidiaries (energy-derived emissions) and 2 equity method affiliates (energy-derived emissions).

CO_2 Emissions of JFE Steel Group Subsidiaries (FY2014)

($t\text{-}CO_2$)

Name of Company	CO_2 Emissions
JFE Bars & Shapes Corp.	1,196,344
Mizushima Ferroalloy Co., Ltd.	605,838
JFE Chemical Corp.	599,021
JFE Mineral Company, Ltd.	404,174
JFE Logistics Corporation	179,756
JFE Galvanizing & Coating Co., Ltd.	87,330
JFE Material Co., Ltd.	71,181
JFE Rockfiber Corporation	30,000
JFE Pipe Fitting Mfg. Co., Ltd.	24,226
JFE Plastic Resource Corporation	21,234
Galvatex Corp.	14,458
Mizushima Riverment Corp.	12,562
JFE Container Co., Ltd.	11,672
JFE Metal Products & Engineering Inc.	11,337
JFE Logistics Corporation	10,305
JFE Techno-Wire Corp.	9,864
JFE Life Corp.	8,146
JFE Precision Co., Ltd.	7,315
JFE Welded Pipe Manufacturing Co., Ltd.	6,957
JFE Kenzai Fence Co., Ltd.	6,355
Chiba Riverment and Cement Corp.	5,066
JFE Steel Pipe Co., Ltd.	4,652
KP Sheet Co., Ltd.	4,551
Gecoss Corporation	3,946
JFE Electrical Steel Co., Ltd.	3,920
JFE Kozai Corp.	3,855
6 overseas companies	1,967,325
Total	5,311,391

Energy Consumption of JFE Steel Group Subsidiaries (FY2014)

(GJ)

Name of Company	Energy Use
JFE Bars & Shapes Corp.	21,330,987
JFE Chemical Corp.	11,592,624
JFE Mineral Company, Ltd.	6,835,377
Mizushima Ferroalloy Co., Ltd.	6,065,096
JFE Logistics Corp.	2,559,908
JFE Galvanizing & Coating Co., Ltd.	1,791,642
JFE Material Co., Ltd.	1,250,395
JFE Rockfiber Corporation	532,534
JFE Pipe Fitting Mfg. Co., Ltd.	443,652
JFE Plastic Resource Corporation	387,393
Galvatex Corporation	281,361
JFE Container Co., Ltd.	221,492
JFE Metal Products & Engineering Inc.	208,930
Mizushima Riverment Corp.	186,406
JFE Techno-Wire Corp.	184,670
J-Logitec Co., Ltd.	150,574
JFE Life Corp.	145,412
JFE Precision Co., Ltd.	133,092
JFE Welded Pipe Manufacturing Co., Ltd.	125,478
Kenzai Fence Co., Ltd.	110,985
KP Sheet Co., Ltd.	97,247
Chiba Riverment and Cement Corp.	91,824
JFE Steel Pipe Co., Ltd.	81,210
JFE Electrical Steel Co., Ltd.	70,956
Gecoss Corporation	70,607
JFE Kozai Corp.	69,386
6 overseas companies	20,158,395
Total	75,177,632

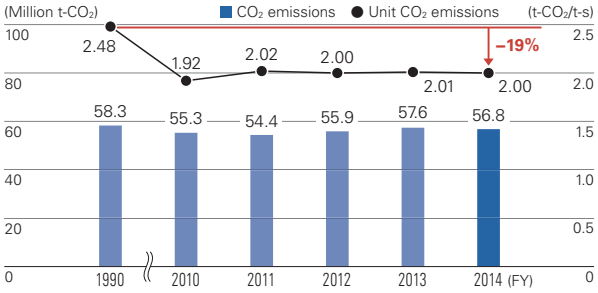
* The total does not add up due to rounding.

CO_2 Emission Factor for Purchased Energy
- JFE Steel uses the emission factor of the Japan Iron and Steel Federation's Voluntary Action Plan. Note that values for FY2013 were used for FY2014.
- With the exception of JFE Steel, companies use the CO_2 equivalent of 0.000550 ($t\text{-}CO_2$/ kWh) for the FY2012 unadjusted emission factors of each electric power company.
- Overseas: based on each country's GHG protocol

CO_2 Emissions and Energy Consumption

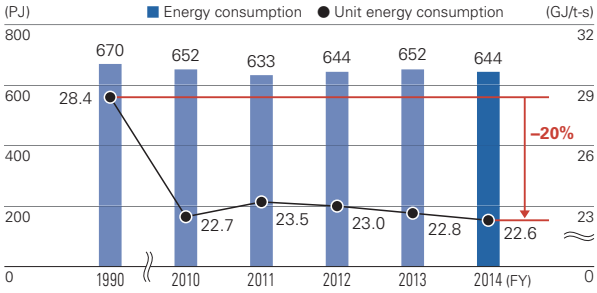
● Status of JFE Steel

Energy-derived CO_2 Emissions and Unit CO_2 Emissions



Notes: The CO_2 coefficient for purchased electricity uses voluntary action target values from The Japan Iron and Steel Federation. However, the FY2013 value is used for FY2014 as well.
Data for certain fiscal years have been recalculated retroactively for improved accuracy.

Energy Consumption and Unit Energy Consumption



Note: Data for certain fiscal years have been recalculated retroactively for improved accuracy.

Changes in Unit CO_2 Emissions and Crude Steel Production vs. FY1990

(%)

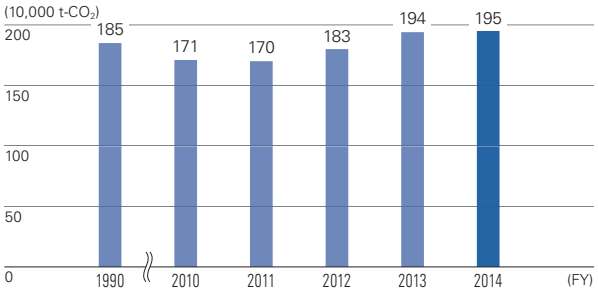
	2010	2011	2012	2013	2014
Unit Emissions	–22	–20	–21	–19	–19
Crude Steel Production	22	14	19	22	21

Changes in Unit Energy Consumption and Crude Steel Production vs. FY1990

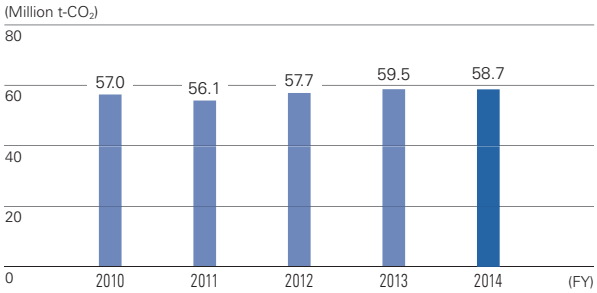
(%)

	2010	2011	2012	2013	2014
Unit Energy Consumption	–20	–17	–19	–19	–20
Crude Steel Production	22	14	19	22	21

Estimated Non-energy-related CO_2 Emissions

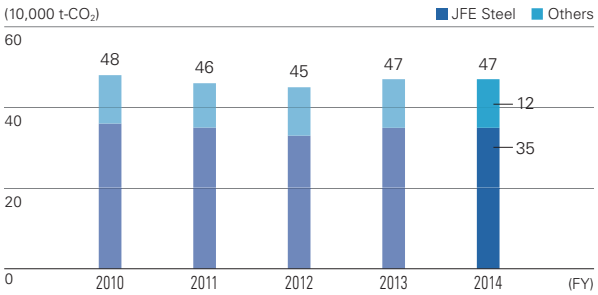


Total CO_2 Emissions (Energy-related and Non-energy-related)

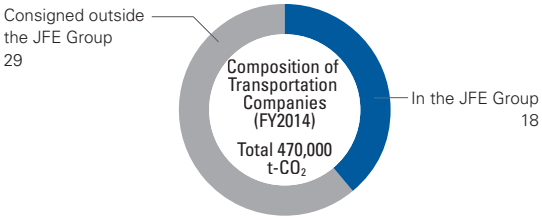


Note: Data for certain fiscal years have been recalculated retroactively for improved accuracy.

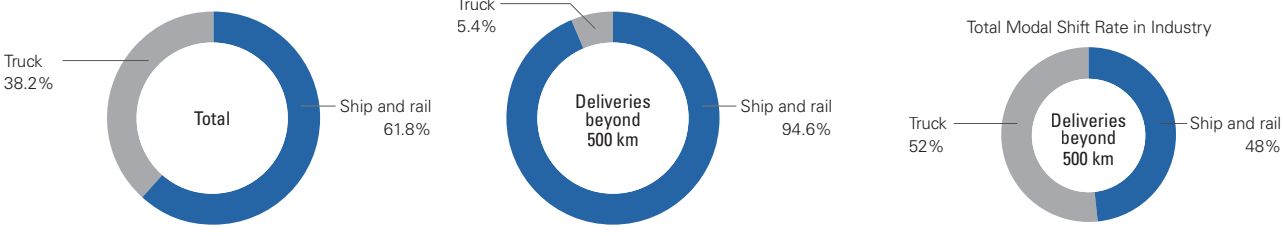
Greenhouse Gas Emitted During Transportation



Aggregation scope: Transportation in Japan



Modal Shift Rate (FY2014)

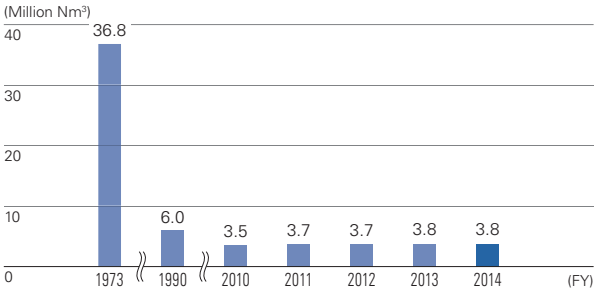


Source: Ministry of Land, Infrastructure, Transport and Tourism

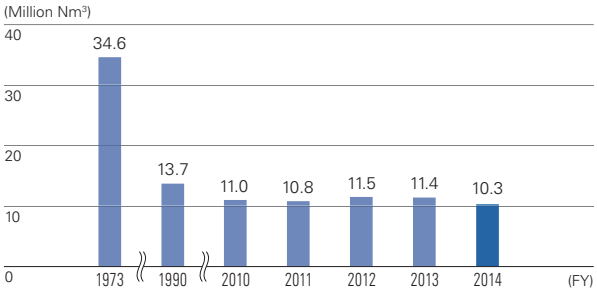
Disposed Substances

● Atmospheric Emissions

SOx Emissions

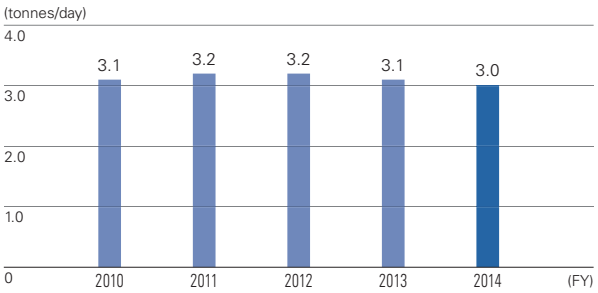


NOx Emissions

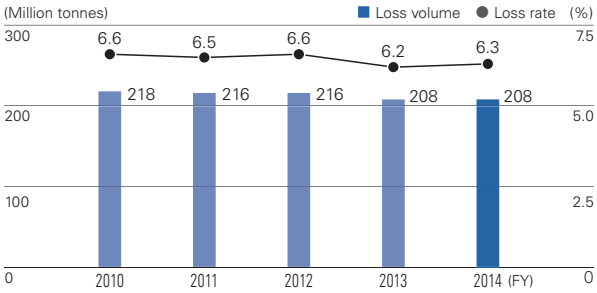


● Discharge into Waterways

Changes in Chemical Oxygen Demand (COD)

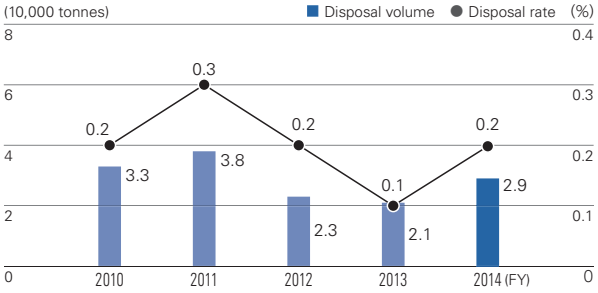


Wastewater and Evaporation Loss



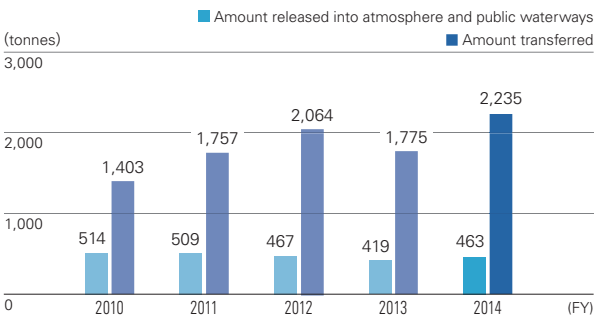
● Byproducts Disposal

Byproducts Disposal



● Management of Chemical Substances

Release or Transfer of PRTR-registered Substances



Note: Values for past fiscal years have been recalculated retroactively for improved accuracy.

Substances Reported under PRTR (all Companies)

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
1	Zinc compounds (water-soluble)	0	6.5	0	0	0	10.0
15	Acenaphthene	0	0	0	0	0	0
20	2-aminoethanol	0	0	0	0	0	1.8
31	Antimony and its compounds	0	0.6	0	0	0	25.0
32	Anthracene	0	0	0	0	0	0
33	Asbestos	0	0	0	0	0	0
53	Ethylbenzene	31.5	0	0	0	0	8.3
71	Ferric chloride	0	0	0	0	0	0
80	Xylene	140.4	0	0	0	0	10.2
83	Cumene	1.9	0	0	0	0	0
87	Chromium and chromium(III) compounds	0.0	0.8	0	0	0	968.2
88	Chromium(VI) compounds	0	0.1	0	0	0	0.7
132	Cobalt and its compounds	0	0	0	0	0	0.0
185	Dichloropentafluoropropane; HCFC-225	57.8	0	0	0	0	0
186	Dichloromethane; methylene dichloride	14.1	0	0	0	0	0
188	N,N-dicyclohexylamine	0	0	0	0	0	2.5
240	Styrene	0.6	0	0	0	0	0
242	Selenium and its compounds	0	0.0	0	0	0	2.3
243	Dioxins	5.6	0	0	0	0	0
262	Tetrachloroethylene	20.8	0	0	0	0	0
272	Copper salts (water-soluble, except complex salts)	0	0.1	0	0	0	0
292	Tributylamine	0	0	0	0	0	0
296	1,2,4-trimethylbenzene	4.3	0	0	0	0	0.1
297	1,3,5-trimethylbenzene	6.5	0	0	0	0	0.3
300	Toluene	84.6	0	0	0	0	2.3
302	Naphthalene	1.7	0	0	0	0	0.2
304	Lead	0	0	0	0	0	0
305	Lead compounds	0	0	0	0	0	240.0
308	Nickel	0	0	0	0	0	3.9
309	Nickel compounds	0.0	3.1	0	0	0	185.0
321	Vanadium compounds	0	0	0	0	0	25.0
333	Hydrazine	0	0	0	0	0	0
340	Biphenyl	0	0	0	0	0	0
349	Phenol	1.0	0	0	0	0	0
374	Hydrogen fluoride and its water-soluble salts	0	24.2	0	0	0	27.0
384	1-bromopropane	0	0	0	0	0	0
392	N-hexane	0.0	0	0	0	0	0
400	Benzene	20.8	0	0	0	0	0
405	Boron compounds	0	19.8	0	0	0	4.3
406	Polychlorinated biphenyls; PCBs	0	0	0	0	0	0
407	Poly(oxyethylene) alkyl ether (alkyl C=12-15)	0	0	0	0	0	1.5
410	Poly(oxyethylene) nonylphenyl ether	0	0	0	0	0	0
411	Formaldehyde	0	0	0	0	0	0
412	Manganese and its compounds	0.0	16.0	0	0	0	697.0
438	Methylnaphthalene	0	0	0	0	0	0
448	Methylenebis(4,1-phenylene) diisocyanate	0	0	0	0	0	0
453	Molybdenum and its compounds	0.0	6.3	0	0	0	17.9
460	Tritolyl phosphate	0	0	0	0	0	0
461	Triphenyl phosphate	0	0	0	0	0	1.4
Subtotal		386	77	0	0	0	2,235
Total		463				2,235	

Substances Reported under PRTR (East Japan Works) Chiba District

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
1	Zinc compounds (water-soluble)	0	0.2	0	0	0	10.0
20	2-aminoethanol	0	0	0	0	0	0
31	Antimony and its compounds	0	0	0	0	0	0
53	Ethylbenzene	0.7	0	0	0	0	0
71	Ferric chloride	0	0	0	0	0	0
80	Xylene	1.6	0	0	0	0	0
87	Chromium and chromium(III) compounds	0.0	0.6	0	0	0	890.0
88	Chromium(VI) compounds	0	0.1	0	0	0	0
132	Cobalt and its compounds	0	0	0	0	0	0
185	Dichloropentafluoropropane; HCFC-225	56.0	0	0	0	0	0
243	Dioxins	0.1	0	0	0	0	0
272	Copper salts (water-soluble, except complex salts)	0	0.1	0	0	0	0
297	1,3,5-trimethylbenzene	0	0	0	0	0	0
300	Toluene	0.3	0	0	0	0	0
308	Nickel	0	0	0	0	0	3.9
309	Nickel compounds	0.0	1.8	0	0	0	140.0
321	Vanadium compounds	0	0	0	0	0	0
333	Hydrazine	0	0	0	0	0	0
349	Phenol	0	0	0	0	0	0
374	Hydrogen fluoride and its water-soluble salts	0	17.0	0	0	0	27.0
400	Benzene	1.2	0	0	0	0	0
405	Boron compounds	0	2.0	0	0	0	0.4
410	Poly(oxyethylene) nonylphenyl ether	0	0	0	0	0	0
412	Manganese and its compounds	0.0	0.4	0	0	0	95.0
453	Molybdenum and its compounds	0	2.5	0	0	0	0.8
Subtotal		60	25	0	0	0	1,167
Total		85				1,167	

Substances Reported under PRTR (East Japan Works) Nishinomiya District

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
87	Chromium and chromium(III) compounds	0	0	0	0	0	0
Subtotal		0	0	0	0	0	0
Total		0				0	

Substances Reported under PRTR (Keihin District)

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
20	2-aminoethanol	0	0	0	0	0	1.8
53	Ethylbenzene	2.8	0	0	0	0	1.2
80	Xylene	7.6	0	0	0	0	2.6
87	Chromium and chromium(III) compounds	0.0	0	0	0	0	15.0
88	Chromium(VI) compounds	0	0	0	0	0	0.2
243	Dioxins	1.6	0	0	0	0	0
262	Tetrachloroethylene	0	0	0	0	0	0
297	1,3,5-trimethylbenzene	0.7	0	0	0	0	0.3
300	Toluene	13.0	0	0	0	0	2.2
308	Nickel	0	0	0	0	0	0
309	Nickel compounds	0.0	0	0	0	0	0
333	Hydrazine	0	0	0	0	0	0
349	Phenol	1.0	0	0	0	0	0
400	Benzene	7.7	0	0	0	0	0
405	Boron compounds	0	3.1	0	0	0	0.1
407	Poly(oxyethylene) alkyl ether (alkyl C=12-15)	0	0	0	0	0	1.5
412	Manganese and its compounds	0.0	0.5	0	0	0	310.0
453	Molybdenum and its compounds	0.0	1.6	0	0	0	17.0
460	Tritolyl phosphate	0	0	0	0	0	0
461	Triphenyl phosphate	0	0	0	0	0	1.4
Subtotal		33	5	0	0	0	352
Total		38				352	

Substances Reported under PRTR (West Japan Works) Kurashiki District

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
1	Zinc compounds (water-soluble)	0	2.9	0	0	0	0
20	2-aminoethanol	0	0	0	0	0	0
31	Antimony and its compounds	0	0.1	0	0	0	0.0
53	Ethylbenzene	4.4	0	0	0	0	0
71	Ferric chloride	0	0	0	0	0	0
80	Xylene	7.1	0	0	0	0	0
87	Chromium and chromium(III) compounds	0.0	0	0	0	0	25.0
88	Chromium(VI) compounds	0	0	0	0	0	0.5
132	Cobalt and its compounds	0	0	0	0	0	0
185	Dichloropentafluoropropane; HCFC-225	1.8	0	0	0	0	0
186	Dichloromethane; methylene dichloride	2.1	0	0	0	0	0
242	Selenium and its compounds	0	0.0	0	0	0	2.3
243	Dioxins	1.4	0	0	0	0	0
258	1,3,5,7-tetraazatricyclo[3.3.1.13.7]decane; hexamethylenetetramine	0	0	0	0	0	0
262	Tetrachloroethylene	1.8	0	0	0	0	0
292	Tributylamine	0	0	0	0	0	0
296	1,2,4-trimethylbenzene	1.8	0	0	0	0	0
300	Toluene	33.0	0	0	0	0	0
302	Naphthalene	0	0	0	0	0	0
305	Lead	0	0	0	0	0	0
308	Lead compounds	0	0	0	0	0	0
309	Nickel	0.0	0	0	0	0	8.2
400	Nickel compounds	1.9	0	0	0	0	0
405	Benzene	0	8.9	0	0	0	1.3
406	Polychlorinated biphenyls; PCBs	0	0	0	0	0	0
410	Poly(oxyethylene) nonylphenyl ether	0	0	0	0	0	0
411	Formaldehyde	0	0	0	0	0	0
412	Manganese and its compounds	0.0	9.5	0	0	0	85.0
453	Molybdenum and its compounds	0	2.0	0	0	0	0.0
460	Tritolyl phosphate	0	0	0	0	0	0
Subtotal		54	23	0	0	0	122
Total		77				122	

Substances Reported under PRTR (West Japan Works) Konan District

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
80	Xylene	1.1	0	0	0	0	0
300	Toluene	2.3	0	0	0	0	0
Subtotal		3	0	0	0	0	0
Total		3				0	

Substances Reported under PRTR (Fukuyama District)

(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
1	Zinc compounds (water-soluble)	0	3.4	0	0	0	0
15	Acenaphthene	0	0	0	0	0	0
20	2-aminoethanol	0	0	0	0	0	0
31	Antimony and its compounds	0	0.4	0	0	0	25.0
32	Anthracene	0	0	0	0	0	0
53	Ethylbenzene	14.0	0	0	0	0	7.1
71	Ferric chloride	0	0	0	0	0	0
80	Xylene	59.0	0	0	0	0	7.6
87	Chromium and chromium(III) compounds	0	0	0	0	0	38.0
88	Chromium(VI) compounds	0	0	0	0	0	0
104	Chlorodifluoromethane; HCFC-22	0	0	0	0	0	0
132	Cobalt and its compounds	0	0	0	0	0	0.0
186	Dichloromethane; methylene dichloride	12.0	0	0	0	0	0
240	Styrene	0.6	0	0	0	0	0
243	Dioxins	2.5	0	0	0	0	0
262	Tetrachloroethylene	19.0	0	0	0	0	0
296	1,2,4-trimethylbenzene	2.3	0	0	0	0	0.1
300	Toluene	28.0	0	0	0	0	0.1
302	Naphthalene	1.7	0	0	0	0	0.2
305	Lead compounds	0	0	0	0	0	240.0
308	Nickel	0	0	0	0	0	0
309	Nickel compounds	0	1.3	0	0	0	30.0
321	Vanadium compounds	0	0	0	0	0	25.0
340	Biphenyl	0	0	0	0	0	0
374	Hydrogen fluoride and its water-soluble salts	0	7.2	0	0	0	0
400	Benzene	10.0	0	0	0	0	0
405	Boron compounds	0	1.6	0	0	0	2.5
411	Formaldehyde	0	0	0	0	0	0
412	Manganese and its compounds	0	5.5	0	0	0	190.0
438	Methylnaphthalene	0	0	0	0	0	0
453	Molybdenum and its compounds	0	0	0	0	0	0
460	Tritolyl phosphate	0	0	0	0	0	0
461	Triphenyl phosphate	0	0	0	0	0	0
Subtotal		147	19	0	0	0	566
Total		166				566	

Substances Reported under PRTR (Chita Works)

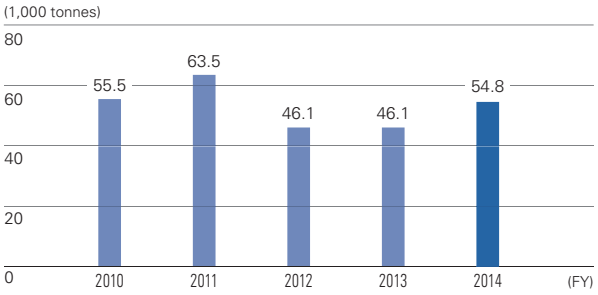
(tonnes/year, dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
1	Zinc compounds (water-soluble)	0	0.0	0	0	0	0
53	Ethylbenzene	9.6	0	0	0	0	0
80	Xylene	64.0	0	0	0	0	0
83	Cumene	1.9	0	0	0	0	0
87	Chromium and chromium(III) compounds	0	0.2	0	0	0	0.2
188	N,N-dicyclohexylamine	0	0	0	0	0	2.5
296	1,2,4-trimethylbenzene	0.2	0	0	0	0	0
297	1,3,5-trimethylbenzene	5.8	0	0	0	0	0
300	Toluene	8.0	0	0	0	0	0
305	Lead compounds	0	0	0	0	0	0
308	Nickel	0	0	0	0	0	0
309	Nickel compounds	0	0.0	0	0	0	6.8
384	1-bromopropane	0	0	0	0	0	0
392	N-hexane	0.0	0	0	0	0	0
405	Boron compounds	0	4.2	0	0	0	0
412	Manganese and its compounds	0	0.1	0	0	0	17.0
448	Methylenebis(4,1-phenylene) diisocyanate	0	0	0	0	0	0
453	Molybdenum and its compounds	0	0.2	0	0	0	0.1
Subtotal		89	5	0	0	0	27
Total		94				27	

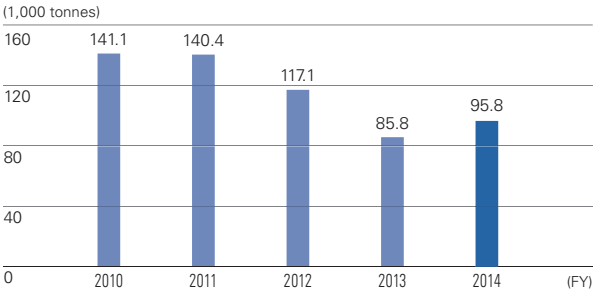
JFE Engineering

Input Materials

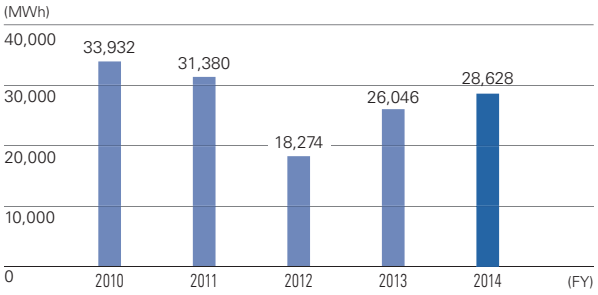
Raw Materials



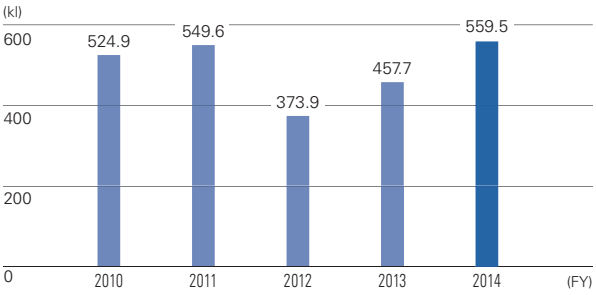
Water



Electricity

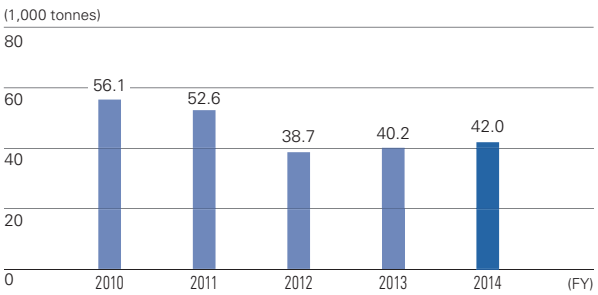


Heavy Oil, Kerosene, Light Oil and Gasoline



Output Products

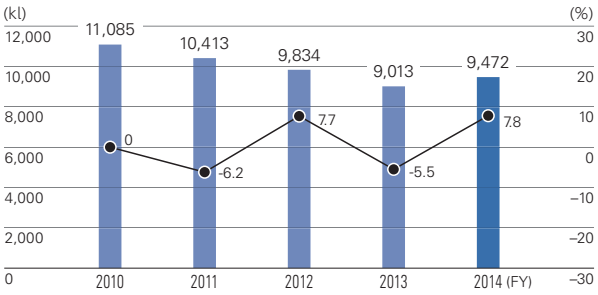
Products



CO_2 Emissions

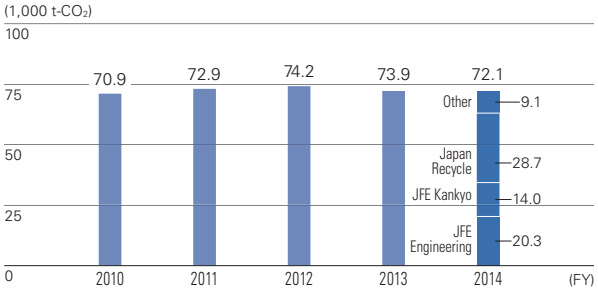
● Status on Non-consolidated Basis

Energy Consumption Volumes and Rates



● Status as a Group

CO_2 Emissions



Notes: The graph shows energy-derived CO_2 emissions for JFE Engineering and 11 domestic consolidated affiliates.
Data for certain fiscal years have been recalculated retroactively for improved accuracy.

CO_2 Emissions of JFE Engineering Group Companies (FY2014)

(t-CO_2)

Name of Company	Emissions
Japan Recycling Corporation	28,706
JFE Engineering Corporation	20,321
JFE Kankyo Corporation	14,011
Fuji Kako Co., Ltd.	2,607
Japan Pipeline Engineering Corporation	1,685
JFE Urban Recycle Corporation	1,293
Tohoku Dock Tekko K.K.	1,150
Asukasoken Co., Ltd.	791
Kitanippon Industrial Co., Ltd.	780
Recycling Management Japan, Inc.	710
JFE Technos Corporation	96
Total	72,149

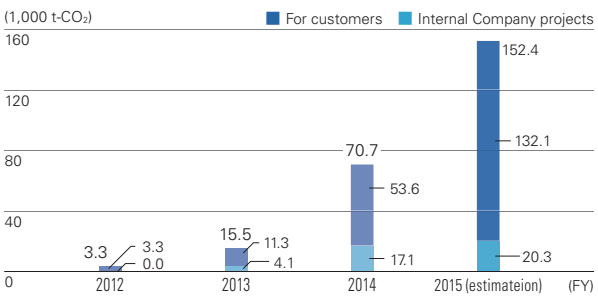
Energy Consumption of JFE Engineering Group Companies (FY2014)

(GJ)

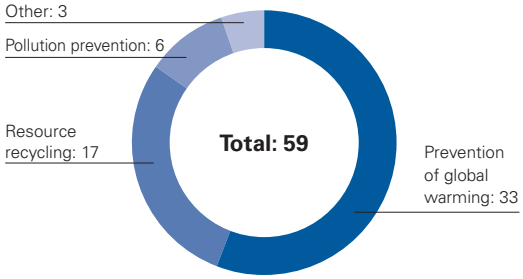
Name of Company	Energy Use
Japan Recycling Corporation	484,378
JFE Engineering Corporation	368,610
JFE Kankyo Corporation	240,562
Fuji Kako Co., Ltd.	47,158
Japan Pipeline Engineering Corporation	31,131
JFE Urban Recycle Corporation	22,104
Tohoku Dock Tekko K.K.	19,021
Asukasoken Co., Ltd.	13,043
Kitanippon Industrial Co., Ltd.	12,449
Recycling Management Japan, Inc.	10,025
JFE Technos Corporation	1,549
Total	1,250,031

Technologies to Reduce Environmental Load

Construction of Solar Power Plants



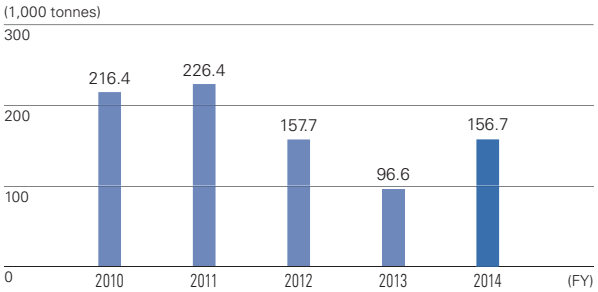
Reduction of Environmental Loads (FY2014)



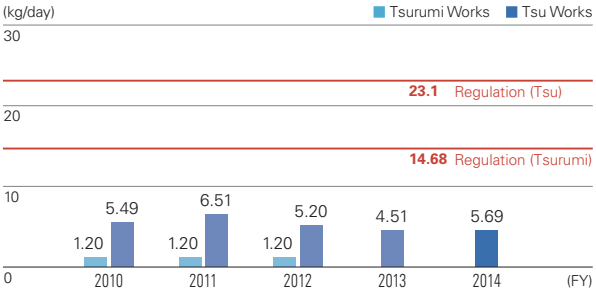
Disposed Substances

● Release into Water Area

Wastewater



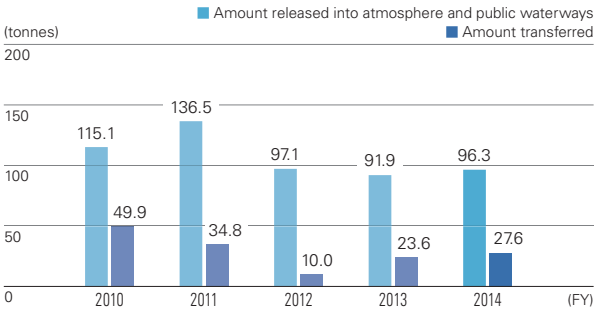
Chemical Oxygen Demand (COD) in Wastewater Released Publicly



Note: The Tsurumi Works was connected to the public sewer system in FY2013.

Management of Chemical Substances

Release and Transfer of PRTR-Registered Substance



Substances Reported under PRTR (all Companies)

(tonnes/year; for dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
53	Ethylbenzene	17.5	0.0	0.0	0.0	0.0	1.0
80	Xylene	45.3	0.0	0.0	0.0	0.0	2.5
243	Dioxins (mg-TEQ)	0.019	0.000	0.000	0.000	0.000	4.5
296	1,2,4-trimethylbenzene	0.0058	0.0	0.0	0.0	0.0	0.2
297	1,3,5-trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.1
300	Toluene	33.5	0.0	0.0	0.0	0.0	2.3
305	Lead compounds	0.0	0.0	0.0	0.0	0.0	0.0009
309	Nickel compounds	0.0	0.0	0.0	0.0	0.0	2.8
400	Benzene	0.0001	0.0	0.0	0.0	0.0	0.0
406	Polychlorinated biphenyls	0.0	0.0	0.0	0.0	0.0	3.2
412	Manganese and its compounds	0.0	0.0	0.0	0.0	0.0	14.6
448	Methylenebis(4,1-phenylene) diisocyanate	0.0	0.0	0.0	0.0	0.0	0.9
Subtotal		96.3	0.0	0.0	0.0	0.0	27.6
		96.3				27.6	
Total		123.9					

Note: Dioxins is not included in the total or subtotal.

Substances Reported under PRTR (Yokohama Head Office (former Tsurumi Works))

(tonnes/year; for dioxins: g-TEQ/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
53	Ethylbenzene	2.3	0	0	0	0	0.2
80	Xylene	6.1	0	0	0	0	0.5
243	Dioxins (mg-TEQ)	0.019	0	0	0	0	4.5
300	Toluene	19.0	0	0	0	0	1.5
406	Polychlorinated biphenyls	0.0	0	0	0	0	3.2
412	Manganese and its compounds	0.0	0	0	0	0	0.9
448	Methylenebis(4,1-phenylene) diisocyanate	0.0	0	0	0	0	0.9
Subtotal		27.4	0.0	0.0	0.0	0.0	7.2
		27.4				7.2	
Total		34.6					

Substances Reported under PRTR (Tsu Works)

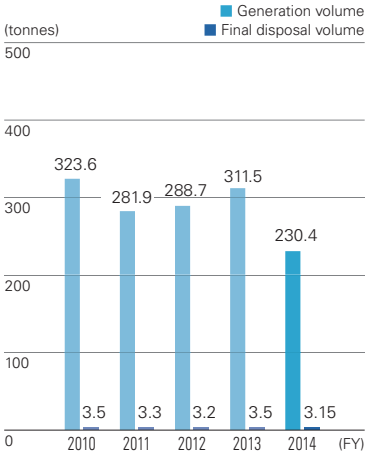
(tonnes/year)

Substance No.	Substance	Volume Released				Volume Transferred	
		Air	Water Area	Soil	On-premise Landfill	Sewer	Off-premise
53	Ethylbenzene	15.2	0	0	0	0	0.8
80	Xylene	39.2	0	0	0	0	2.1
296	1,2,4-trimethylbenzene	0.0058	0	0	0	0	0.2
297	1,3,5-trimethylbenzene	0	0	0	0	0	0.1
300	Toluene	14.5	0	0	0	0	0.8
305	Lead compounds	0	0	0	0	0	0.0009
309	Nickel compounds	0	0	0	0	0	2.8
400	Benzene	0.0001	0	0	0	0	0
412	Manganese and its compounds	0	0	0	0	0	13.7
Subtotal		68.9	0	0	0	0	20.4
		68.9				20.4	
Total		89.4					

Waste Disposal in Each Section and Works

● Offices

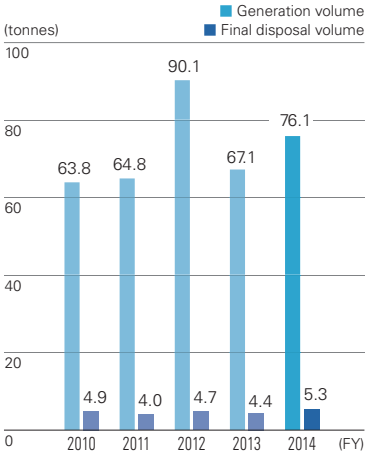
Yokohama Head Office



(%)

	2010	2011	2012	2013	2014
Recycling rate (target)	98.0	98.0	98.0	98.0	98.0
Recycling rate (result)	98.8	98.8	98.8	98.8	98.5

Tsu Works

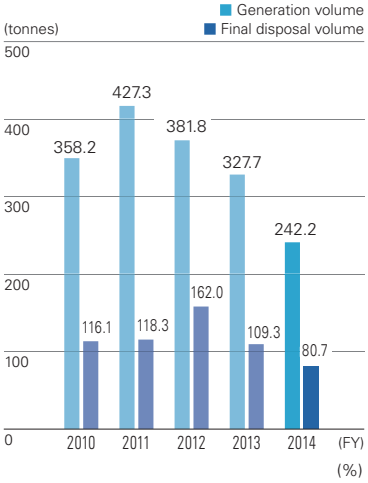


(%)

	2010	2011	2012	2013	2014
Recycling rate (target)	83.0	90.0	91.0	92.0	92.0
Recycling rate (result)	84.9	90.0	92.1	88.1	87.4

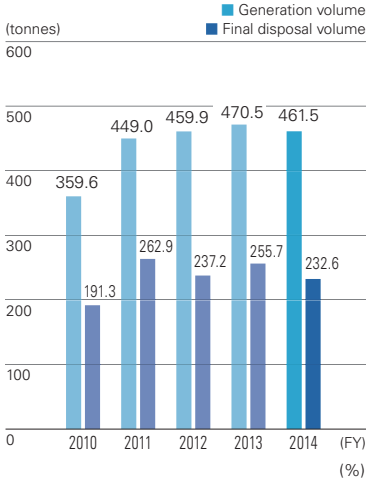
● Plants

Tsurumi Works



	2010	2011	2012	2013	2014
Recycling rate (target)	54.0	54.0	55.0	56.0	58.0
Recycling rate (result)	53.0	60.8	41.4	53.6	57.5

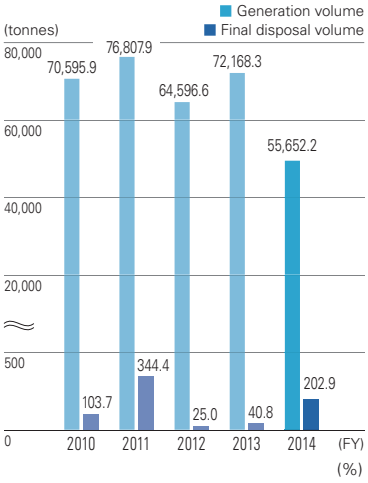
Tsu Works



	2010	2011	2012	2013	2014
Recycling rate (target)	25.0	31.0	29.0	30.0	30.0
Recycling rate (result)	30.2	25.5	32.0	30.1	33.9

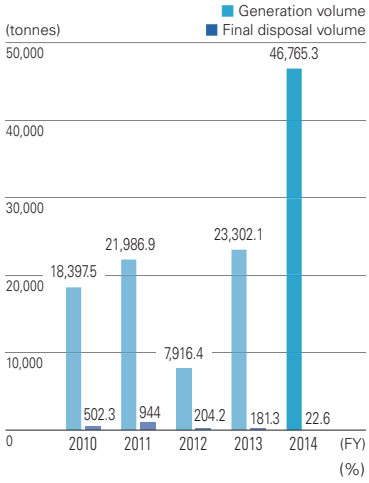
● Construction Sites

Rubble



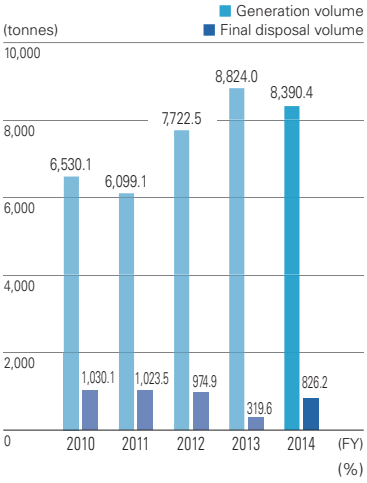
	2010	2011	2012	2013	2014
Recycling rate (target)	99.5	99.5	99.5	99.5	99.5
Recycling rate (result)	99.9	99.6	100	99.9	99.6

Sludge



	2010	2011	2012	2013	2014
Recycling rate (target)	75.0	95.0	95.0	95.0	95.0
Recycling rate (result)	97.1	95.6	97.4	99.2	99.95

Industrial Wastes, Excluding Rubble and Sludge

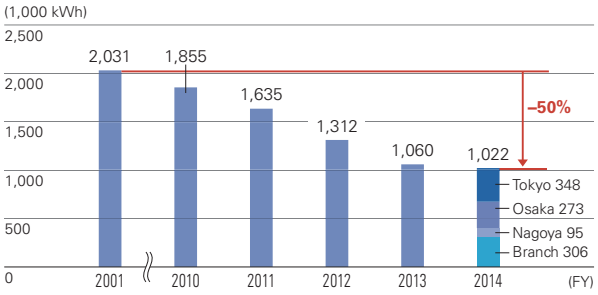


	2010	2011	2012	2013	2014
Recycling rate (target)	80.0	85.0	85.0	85.0	85.0
Recycling rate (result)	83.0	82.9	87.1	96.2	93.3

JFE Shoji Trade

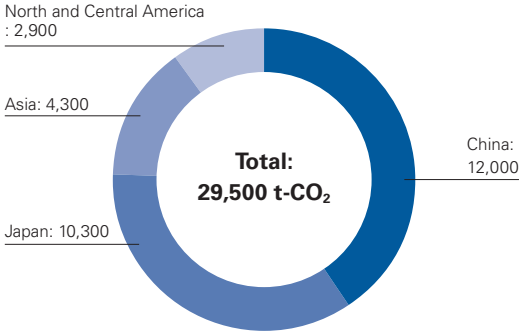
Electricity Consumption and CO_2 Emissions

Electric Power Consumption



CO_2 emission factor for purchased energy:
CO_2 equivalent of 0.000550 (t-CO_2/kWh) for the FY2012 unadjusted emission factors of each electric power company.

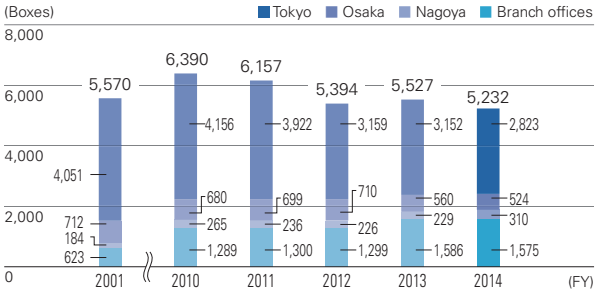
CO_2 Emissions of JFE Shoji Trade Group



Note: The graph shows CO_2 emissions from electric power consumption by 32 companies, including JFE Shoji Trade and domestic and overseas consolidated subsidiaries (steel-processing companies).

Input Materials

Paper Used by JFE Shoji Trade (Copier Papers)



Comparison with Environmental Reporting Guidelines 2012 (Ministry of the Environment, Japan)

Report Parameters and Summary						
Item	CSR Report					Environmental Data Book Pages
	Pages	Content	JFE Steel	JFE Engineering	JFE Shoji Trade	
1. Report Profile						
(1) Report boundary and reporting period	1	Editorial Policy	○	○	○	1
(2) Organizations coverage ratio and reporting period difference	1	Editorial Policy	○	○	○	—
(3) Reporting policies	1	Editorial Policy	○	○	○	—
	62–63	GRI Content Index	○	○	○	—
(4) Policies for selecting a type of report	1	Editorial Policy	○	○	○	—
	Back cover	Contact information	○	○	○	—
2. Chairman's statement/CEO's statement						
	3–4	Message from the CEO	○	○	○	—
3. Summary						
(1) Overview of environmentally focused management	5–6	JFE in Society	○	○	○	2
(2) Overview of KPI trends	—	—				—
(3) Summary of activities to address an individual environmental issue	31–32	Priority Targets and Results	○	○	○	7–8
4. Material Balance						
	33–34	Materials Flow	○	○		9–10

Information and Indicators on How Environmentally Focused Management Including Environmental Management is Working						
Item	CSR Report					Environmental Data Book Pages
	Pages	Content	JFE Steel	JFE Engineering	JFE Shoji Trade	
1. Environmental Policies, Visions and Business Strategies						
(1) Environmental policies	2	Standards of Business Conduct	○	○	○	—
	27	Environmental Philosophy and Strategies	○	○	○	—
(2) Material issues, visions and business strategies	3–4	Message from the CEO	○	○	○	—
	30	Environmental Risks and Opportunities	○	○	○	—
2. Organizational Systems and Governance						
(1) Organizational systems for environmentally focused management	27–28	Environmental Management	○	○	○	3
	65–66	Third-party Comments	○	○	○	—
(2) Environmental risk management system	27–28	Environmental Management	○	○	○	—
(3) Compliance with environmental regulations	28	Environmental Auditing	○	○	○	—
	40–41	Protecting the Environment	○	○		—
3. Responsiveness of Stakeholder Issues						
(1) Responsiveness to stakeholder issues	27	Environmental Philosophy and Strategies	○	○	○	—
	30	Environmental Risks and Opportunities	○	○	○	—
(2) Philanthropy related to the environment	37–39	Initiatives by the Japanese Steel Industry	○			—
	47	Environmental Communication	○	○	○	—
4. Environmental Initiatives in the Value Chain						
(1) Strategies and environmental policies in the value chain	30	Value Chain Initiatives	○	○	○	—
	30	Environmental Risks and Opportunities	○	○	○	—
	36	CO_2 Reduction in Value Chain	○	○		13
(2) Green purchasing and procurement	30	Value Chain Initiatives	○	○	○	—
(3) Products and services designed for mitigating environmental impacts	9–14	Addressing Environmental Issues with Innovative World-class Technology	○	○	○	—
	36	CO_2 Reduction in Value Chain	○			13
	42–43	Resource Recycling	○	○	○	5–6
	44–46	Eco-friendly Products and Technologies	○	○	○	—
(4) New environmental technologies and research and development	9–14	Addressing Environmental Issues with Innovative World-class Technology	○	○	○	—
	29	Environmental Accounting	○	○		4
	37–38	Initiatives by the Japanese Steel Industry	○			—
	44–46	Eco-friendly Products and Technologies	○	○	○	—
(5) Environmentally sound transportation	36	CO_2 Reduction in Value Chain	○			13
(6) Resource exploitations and real estate development/investment with less environmental impacts	—	—				—
(7) Waste management and recycling	31–32	Priority Targets and Results	○	○	○	7–8
	42–43	Resource Recycling	○	○	○	12, 14, 23–24

Information and Indicators on Environmental Impacts of Business Activities and Environmental Initiatives Undertaken to Mitigate Them						
Item	CSR Report					Environmental Data Book Pages
	Pages	Content	JFE Steel	JFE Engineering	JFE Shoji Trade	
1. Resources Used and Energy Consumption						
(1) Total energy consumption and initiatives to reduce it	11	Addressing Environmental Issues with Innovative World-class Technology	○	○		—
	31–32	Priority Targets and Results	○	○	○	7–8
	33–34	Materials Flow	○	○		9–10, 20
	35–36	Energy Savings and CO_2 Reduction in Steelmaking	○			11–13
	39	CO_2 Reduction Initiatives			○	25
(2) Total materials used and initiatives to reduce them	13	Addressing Environmental Issues with Innovative World-class Technology	○	○		—
	31–32	Priority Targets and Results			○	7–8
	33–34	Materials Flow	○	○		9–10, 11, 20
(3) Water withdrawal and initiatives to reduce it	33–34	Materials Flow	○	○		9–10, 11, 20
	40	Cyclic Use of Water	○			12
2. Recycled input resources (within the organizational boundary)						
	13	Addressing Environmental Issues with Innovative World-class Technology	○	○		—
	31–32	Priority Targets and Results	○	○	○	7–8
	33–34	Materials Flow	○			9–12
	40	Cyclic Use of Water	○			12
	43	Resource Recycling	○	○	○	5–6
3. Products and Services and Environmental Impacts Arising from Production						
(1) Total products manufactured or goods sold	33–34	Materials Flow	○	○		9–10, 11, 20
(2) Greenhouse gas emissions and initiatives to reduce them	11	Addressing Environmental Issues with Innovative World-class Technology	○	○		—
	31–32	Priority Targets and Results	○	○	○	7–8
	33–34	Materials Flow	○	○		9–10
	35–39	Global Warming Prevention	○	○	○	4, 12–13, 21, 25
(3) Total water discharge and initiatives to reduce it	33–34	Materials Flow	○	○		7–8
	40	Efficient Use of Water and Prevention of Contamination	○			11–12, 14, 22
(4) Effluents and nuisance, and initiatives to reduce them	33–34	Materials Flow	○	○		7–8
	40–41	Controlling Air Emissions	○	○		14
(5) Release and transfer of chemical substances and initiatives to reduce them	33–34	Materials Flow	○	○		7–8
	40–41	Management of Chemical Substances	○			14–19, 22–23
(6) Total weight of waste generated, waste disposed by land filling or incineration and initiatives to reduce them	31–32	Priority Targets and Results	○	○		7–8
	33–34	Materials Flow	○	○		9–10, 11–12, 14
	42–43	Resource Recycling	○	○	○	5–6, 23–24
(7) Significant spills of hazardous substances and measures taken for preventing them	41	Management of Chemical Substances	○	○		—
4. Conservation of Biological Diversity and the Sustainable Use of its Components						
	14	Addressing Environmental Issues with Innovative World-class Technology	○			—
	45	Eco-friendly Products and Technologies	○			—
	47	Disclosure and Exchange of Information	○	○		—

Information and Indicators on the Economic and Social Contexts of Environmentally Focused Management						
Item	CSR Report					Environmental Data Book Pages
	Pages	Content	JFE Steel	JFE Engineering	JFE Shoji Trade	
1. Economic Contexts of Environmentally Focused Management						
(1) Economic contexts in an enterprise	29	Environmental Accounting	○	○		4
	30	Environmental Risks and Opportunities	○	○	○	—
(2) Economic contexts in society	30	Environmental Risks and Opportunities	○	○	○	—
2. Social contexts of environmentally focused management						
	15–16	Securing and Nurturing Diverse Human Resources	○	○	○	—
	19–25	Management	○	○	○	—
	48–60	Contributing to Society's Development	○	○	○	—

Miscellaneous Contents to Be Disclosed						
Item	CSR Report					Environmental Data Book Pages
	Pages	Content	JFE Steel	JFE Engineering	JFE Shoji Trade	
1. Events after the Reporting Period						
(1) Events after the reporting period	—					—
(2) Extraordinary events	—					—
2. Assurance and Other Measures to Enhance Reliability of Environmental Information						
	—					—

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