

STEEL
ENGINEERING
SHOJI TRADE



JFE Group
CSR REPORT 2014



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Key The icons on the right identify information that pertains to a specific JFE operating company.	S JFE Steel Corporation
	E JFE Engineering Corporation
	T JFE Shoji Trade Corporation

Editorial Policy

The JFE Group CSR Report provides stakeholders with information about JFE's CSR activities and elicits feedback to support the enhancement of the company's activities and information disclosure. The 2014 report offers:

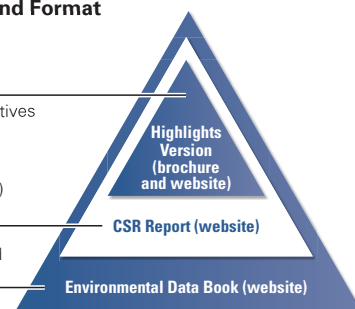
- A new format, switching from descriptions of activities by each operating company to a theme-based presentation of JFE's activities, and
- The inclusion of major subsidiaries in selected quantitative information.

● CSR Report Composition and Format

Reader-friendly summary of CSR initiatives (print and PDF)

Detailed report on CSR activities (PDF)
This Report

Extensive data to supplement detailed report (PDF)



● Scope of Report

Reporting Period

FY2013 (April 1, 2013 to March 31, 2014)

Reports on some activities undertaken outside this period are included.

Organizations Covered

The report mainly covers the activities of the holding company JFE Holdings, Inc. and its three operating companies – JFE Steel Corporation, JFE Engineering Corporation and JFE Shoji Trade Corporation, but also includes reports on some activities pertaining to other companies of the JFE Group (365 companies, of which 303 are consolidated subsidiaries and 62 are equity method affiliates).

Qualitative information includes data from the following JFE operating companies (see Environmental Data Book for complete list of companies).

- JFE Steel Group:
Environment: 35 major domestic subsidiaries (including major manufacturing subsidiaries)
Society: 38 major domestic subsidiaries
- JFE Engineering Group:
11 major domestic subsidiaries (including major manufacturing subsidiaries)
- JFE Shoji Trade Group:
Environment: 30 major domestic and overseas subsidiaries (steel processing companies)
Society: 78 major domestic and overseas subsidiaries

● Reference Guidelines

GRI: G4 Sustainability Reporting Guidelines

Ministry of the Environment (Japan): Environmental Reporting Guidelines 2012

Ministry of the Environment (Japan): Environmental Accounting Guidelines 2005

● Publication Date

September 2014 (previous issue: September 2013; next issue (tentative): September 2015)

● Related Reports

The following information is available at www.jfe-holdings.co.jp/en.

CSR (Society and Environment)

CSR Reports (Highlights Version, CSR Report and Environmental Data Book) provide up-to-date information on JFE's CSR initiatives (PDF format).

Company Profile

Outline of JFE Group, corporate governance, etc.

Investor Information

JFE Group business information, financial data, stock and rating information, etc.

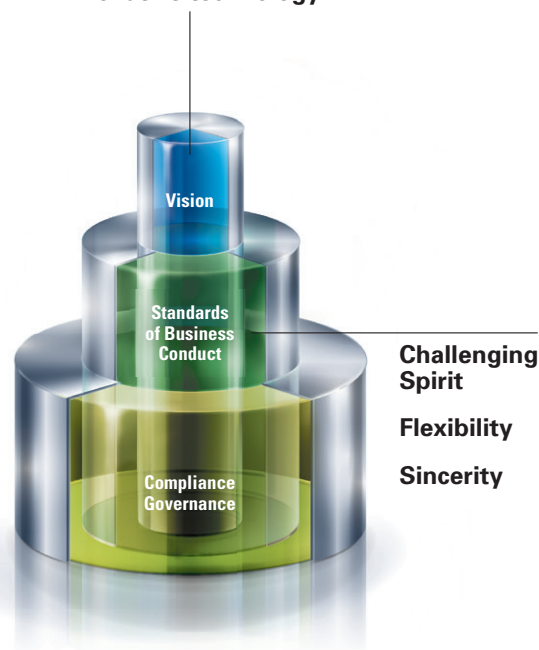
JFE GROUP TODAY (PDF)

JFE Group business activities

JFE puts its corporate value and standards of business conduct into practice to fulfill its mission of contributing to society with the world's most innovative technology. JFE diligently implements initiatives that address highly important issues, including safety, disaster prevention, product quality and human rights, in addition to compliance and environmental protection.

JFE conducts business from the perspective of all stakeholders, including customers, clients, shareholders, investors, community residents and employees, guided by an equitable, fair and transparent system of corporate governance. In the spirit of its corporate values – Challenging Spirit, Flexibility and Sincerity – JFE strives to earn society's trust by undertaking CSR with integrity.

Contributing to society with the world's most innovative technology



Standards of Business Conduct

All JFE executives and employees are expected to adhere to the below-listed Standards of Business Conduct in all facets of corporate activities. The standards embody the vision of JFE and go hand in hand with JFE's corporate values. Senior executives take the lead in communicating the standards to employees throughout JFE and in creating effective systems and mechanisms to ensure adherence. Suppliers are also asked to observe these standards. Senior executives are directly involved both in planning and implementation, as well as the prevention of violations. They are obliged to disclose information about any violation in a timely and accurate manner both inside and outside JFE, clarify the persons with related authority and accountability, and deal rigorously with any offense.

1. Provide quality products and services

Earn the trust and high evaluation of customers by endeavoring to provide safe, high-quality products and services based on superior technology, and by fully respecting and protecting the privacy of personal and customer information.

2. Be transparent to society

Endeavor to communicate with shareholders and society, and actively disclose corporate information.

3. Work cooperatively with communities

Actively contribute to communities as a good corporate citizen by working together in the spirit of cooperation.

4. Globalize

Endeavor to achieve understanding with people around the world, working from a global perspective and respecting international norms and local cultures and customs.

5. Exist in harmony with the global environment

Proactively contribute to the achievement of better living standards and the creation of societies that exist in harmony with the global environment.

6. Maintain proper relationships with government and related authorities

Build and maintain sound and proper relationships with government and related authorities.

7. Refuse to associate with criminal groups

Refuse to associate with any person or organization that threatens social order or stability, and reject any illegal or improper demand.

8. Respect human rights

Respect all employees and members of the general public as individuals and refrain from any discrimination in corporate activities.

9. Provide rewarding work environments

Provide employees with attractive, safe, and rewarding work environments.

10. Comply with laws and ordinances

Comply with all laws and ordinances, endeavor to compete fairly and freely, refrain from illegal business activities, promote sound business practices, and be faithful and sincere in all activities and dealings.



Hajime Bada

President and CEO
JFE Holdings, Inc.

Working with Society toward Sustainable Growth

JFE's corporate vision is to contribute continuously to society with the world's most innovative technology. We seek to provide quality products and services that earn the high evaluation and trust of our customers. At the same time, we recognize that protecting the global environment is a key issue for our company and therefore strive to reduce our environmental impact and promote recycling in all business activities. Also, we develop products that help to resolve major problems, such as the reconstruction of infrastructure and meeting the pressing demand for electricity. Through these efforts, JFE seeks to raise its corporate value and play its part in the creation of sustainable societies.

We share common values that are applied in all Group activities and JFE Holdings fulfills its governance functions to help reinforce comprehensive capabilities. At the same time, the unique strengths of each operating and Group company are nourished to enhance our overall capability to cooperate with society toward the achievement of sustainable growth.

Solutions for Major Issues

JFE is engaged in diverse business fields, including steelmaking, engineering and trading. We help to resolve problems by effectively applying the world's most sophisticated technologies, which we have cultivated over many years.

In our steel business, we have consistently sought to save energy and reduce CO₂ emissions in our steelmaking processes. In FY2013, we were able to reduce our unit energy consumption by 36% compared to FY1973. This figure represents the world's highest level of achievement and bears witness to the innovative technologies we have refined over the years. We take pride in the numerous products we have created through these manufacturing processes, which offer the world's top quality and functionality.

Our mission, as well as further opportunities for growth as one of the world's leading suppliers of steel, are deeply grounded in our efforts to reduce CO₂ emissions by deploying and transferring our technologies worldwide. Equally important, we help other companies increase energy savings in their final products by supplying high-performance steel materials.

Our engineering business provides cutting-edge

Contributing through technology in partnership with society to achieve sustainable growth

proprietary technologies to meet global needs in diverse areas of infrastructure, such as supplying energy to sustain both industry and everyday life, and developing environmental and urban transport infrastructure.

In our trading business, we are helping to develop sustainable societies by providing products that help reduce environmental loads and energy consumption. We also are optimizing energy-saving distribution through our global network spanning 18 countries.

Diversifying Our Workforce

JFE flexibly responds to the ever-changing business environment and nurtures creativity for new value and sustainable development. To that end, we are diversifying our workforce by actively promoting women and recruiting employees of different cultural backgrounds.

In FY2013, JFE Holdings was recognized as a “Nadeshiko Brand”* company by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange, Inc. We are continuing to cultivate a business environment in which women can demonstrate their abilities and succeed in their careers. We also are hiring

individuals who can excel in the global market and are cultivating personnel capable of working effectively with people of different cultures and values.

Meanwhile, as baby-boomer employees approach retirement, a rapid generational change is occurring in our workplaces. We are strengthening training programs to ensure that the knowledge, technical skills and expertise accumulated by these individuals will be effectively passed on to younger generations.

Maintaining Public Trust in JFE

JFE continuously seeks to meet the needs of customers and markets by enhancing comprehensive capabilities and synergies. With our eyes firmly on foreseeable changes in society and industrial structure over the next 10 to 20 years, we are working steadfastly in concert with society to contribute through the power of technologies unique to JFE, and thereby enhance our competitiveness and ability to create new value. We are determined to continue earning the trust of society by fully embracing our corporate values – Challenging Spirit, Flexibility and Sincerity – as we pursue the goal of sustainable development.

* Nadeshiko Brand: A joint program developed by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange. Companies listed on the First Section of the Tokyo Stock Exchange are selected on the basis of their initiatives for promoting opportunities for women, including the establishment of a working environment that enables women to pursue career development. The selected companies are announced publically. In FY2013, 26 companies were selected.



Ensuring the Sustainability of Society and the Earth

Steelmaking, engineering and trading constitute the core businesses of the JFE. Steel, a material with infinite possibilities, lies at the center of JFE. The company has steadily developed proprietary technologies decade after decade, and in wide-ranging areas including energy and resource recycling. JFE Steel is leveraging the world’s most innovative technology to help create sustainable societies worldwide.

Steel Business

- JFE Steel Corporation
- Head Office: Chiyoda-ku, Tokyo
- Sales (consolidated): ¥2,691.6 billion
- Employees (consolidated): 42,481



“Only One” and “Number One” Products for Global Markets

JFE Steel, one of the world’s leading integrated steel producers, operates a highly competitive production system consisting of two major steelworks, one each in eastern and western Japan. The company’s unique “Only One” and market-leading “Number One” branded products and other value-added offerings reflect JFE Steel’s sophisticated technologies and development capabilities.

Contributions to Sustainable Societies

- Development of high-performance steel materials and energy-conserving products and technologies
- Global introduction of energy-saving technologies
- Steel recycling

Raw material extraction

Trading Business

- JFE Shoji Trade Corporation
- Head Offices: Chiyoda-ku, Tokyo and Kita-ku, Osaka
- Sales (consolidated): ¥1,781.3 billion
- Employees (consolidated): 6,207



Creating Value as JFE’s Core Trading Company

JFE Shoji Trade engages in trading in Japan and the import and export of products centering on steel materials, as well as steel raw materials, non-ferrous metals, chemicals, fuels, materials and machinery, and marine vessels. The company also operates businesses in the food and electronics fields.

Contributions to Sustainable Societies

- Introduction of products for reduced environmental loads and energy consumption
- Energy-saving shipping
- Steel scrap recycling
- Renewable energies

Steelmaking

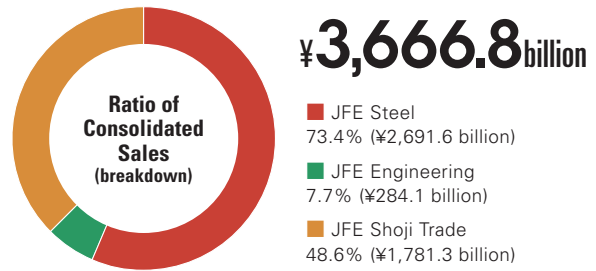


Distribution

Maximizing Corporate Value

JFE Holdings sets Group strategies and procures funding as the holding company of JFE. It also is responsible for disclosing information to the public as a listed company. Each operating company, having developed its own system suited to its respective industry, strives to enhance corporate value by strengthening competitiveness and expanding profitability in the pursuit of sustainable growth.

Company Name	JFE Holdings, Inc.
Head Office	2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011, Japan
Phone	+81-3-3597-4321
Established	September 27, 2002
Capital	¥147.1 billion
Shareholders	286,701
URL	www.jfe-holdings.co.jp/en



Adjustments for intra-group transactions: -29.7% (¥1,090.2 billion). These include internal sales or transfers between segments totaling ¥894.9 billion for the steel business, ¥8.1 billion for the engineering business and ¥267.8 billion for the trading business.

Waste recycling

Urban development

Steel scrap recycling

Engineering Business

- JFE Engineering Corporation
- Head Offices: Chiyoda-ku, Tokyo and Yokohama, Kanagawa
- Sales (consolidated): ¥284.1 billion
- Employees (consolidated): 7,366



Innovative Technologies for Energy and the Environment

JFE Engineering technologies enhance the effective use of resources for clean energy in the core businesses of urban infrastructure and energy. JFE Engineering also develops infrastructure by utilizing its expertise in industrial machinery and steel structures, such as bridges.

Contributions to Sustainable Societies

- Plants in urban environment
- Renewable energies
- Infrastructure construction
- Waste recycling

Reducing Environmental Loads with the World's Most Innovative Technology

Steel production requires a vast amount of energy. The Japanese steel industry currently boasts the world's highest energy efficiency, building on its track record of efficient operations and many years of developing innovative technologies. JFE develops advanced technologies and products that are contributing to the sustainability of the steel industry and society at large.

Effect of innovative initiatives for steelmaking processes

since the first oil shock in 1973

36% reduction of energy consumption!

Coke Plants

Coke Heat Recovery and Water Conservation Coke Dry Quenching (CDQ)

Red-hot coke from a coke oven is charged into a chamber and cooled with nitrogen gas. The resulting high-temperature nitrogen gas is then used to heat a boiler that generates high-pressure water vapor to drive a steam turbine and make electricity. CDQ technology helps to reduce CO₂ emissions and conserves water in this process.



Raw Material Imports

Raw materials such as iron ore and coal are transported by specialized carriers from locations around the world, including Australia, South America and North America.



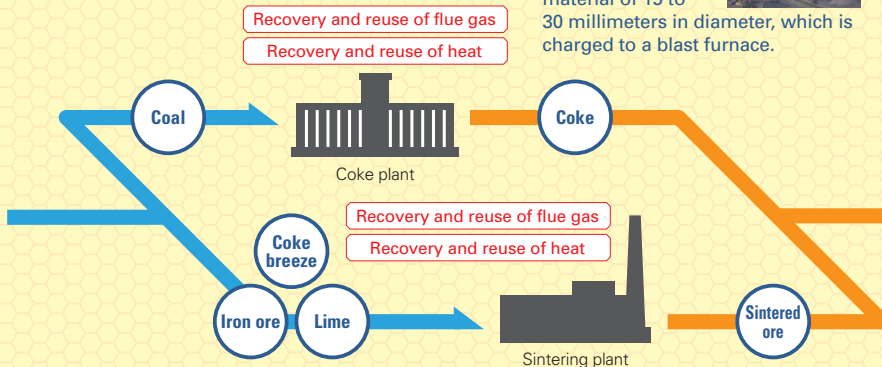
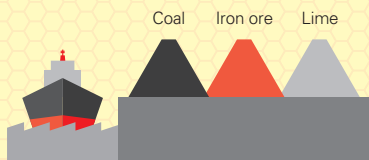
Coke Plants

Crushed coal is carbonized to produce coke with high calorific value, which is then charged to a blast furnace to reduce iron ore into pig iron.



Sintering Plant

Iron granules of 2 to 3 millimeters in diameter are sintered to produce ferrous raw material of 15 to 30 millimeters in diameter, which is charged to a blast furnace.



World's First Use of Hydrogenous Gas to Reduce CO₂ Emissions Super-SINTER®

JFE Steel was the world's first company to use hydrogenous gases, such as natural gas, in a commercial system to replace part of the coke breeze in the ore sintering process to greatly enhance energy efficiency and improve sintered ore quality. Starting with a sintering plant in the Keihin District in 2009, the system subsequently has been deployed at all JFE Steel sintering plants, leading to significant reductions in CO₂ emissions. Super-SINTER® received a National Commendation for Invention – Minister of the Economy, Trade and Industry Invention Award in 2014, the Nikkei Global Environment Technology Awards Grand Prize in 2010 and the Naoji Iwatani Memorial Prize in 2011.



Converting Exhaust Gas Heat into Electricity Waste Heat Recovery Boiler System

Thermal energy is efficiently recovered from hot exhaust gases in industrial processes such as waste incineration, steelmaking and cement production. This system uses only residual energy for the generation of electricity without the need of additional fuel. The process does not emit any greenhouse gases, making it an environmentally harmonious alternative for power generation.

Collecting Toxic Substances before Emission Exhaust Gas Activated-carbon Absorption Systems

JFE Gas Clean DX is an exhaust gas purification system developed by JFE. Packaged cartridges with a unique structure allow the system to adsorb and remove—to an extremely high degree—dioxins, volatile organic compounds and mercury generated by steel production and waste incinerators.



Exhaust Gas Energy for Electricity Generation Blast Furnace Top Pressure Recovery Turbine Generation (TRT)

High pressure is maintained inside the blast furnace to raise productivity. Blast furnace gas is recovered from the furnace top and the high pressure turns the turbine to generate electricity.

100% Reuse of Byproduct Gas Harnessing Gas Generated On-site

All byproduct gases produced inside steelworks are used to generate power and reheat slabs.



Recycling Plastic as a Coke Alternative Using Waste Plastic in Blast Furnaces

Waste plastic is used as a coke alternative to reduce iron ore and thereby cut CO₂ emissions through decreased consumption of natural resources.



Hydrogen Reduction for Diminished CO₂ Emissions Hydrogenous Gas Injection into Blast Furnaces

JFE Steel has developed technology to inject hydrogenous gas, mainly methane, into the blast furnace tuyere simultaneously with hot blast and pulverized coal. This lowers the hydrogen gas component, as well as the need for a carbon-based reducing agent, and also improves permeability inside the furnace, resulting in significantly diminished CO₂ emissions.

Blast Furnace

Raw materials such as sintered ore and coke are charged from the top of the blast furnace, while hot blast is blown in from the tuyeres to reduce iron ore into molten pig iron.



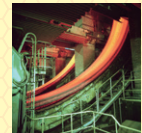
Basic Oxygen Furnace (BOF)

Oxygen is blown into the molten pig iron to remove carbon content and produce molten steel that is high in strength and toughness. Alloying elements are also added to adjust the composition for specific product grades.



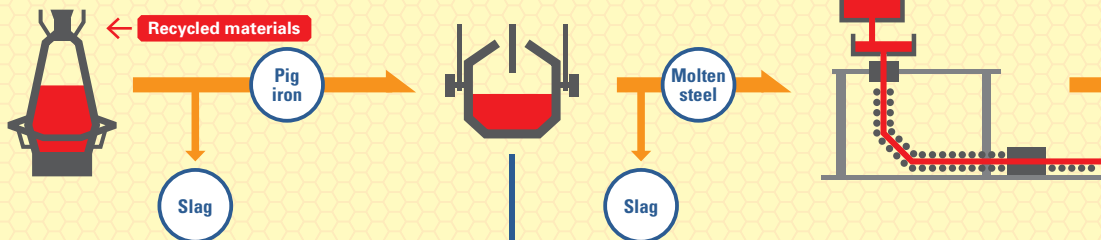
Continuous Caster

Molten steel is continuously cast to produce steel slabs. This method achieves significant energy savings through the continuity of its processes.



Flue gas recovery and reuse
Heat recovery and reuse

Flue gas recovery and reuse
Heat recovery and reuse



Recycling Slag

Iron and steel slag are stone- and sand-like byproducts of steelmaking classified into blast furnace slag and steelmaking slag depending on the process by which they were created. They are reused as environmental materials that help to conserve energy and resources and reduce CO₂ emissions.



Blast furnace slag used as a material for cement

Reuse of High-temperature Exhaust Gas BOF Gas Sensible Heat Recovery

High-temperature (1,450°C) gas discharged by the basic oxygen furnace and containing a high concentration of CO (95%) is recovered as fuel gas after cooling and removing highly concentrated dust. The sensible heat of high-temperature gas as steam can also be recovered using a boiler to cool the gas.

Basic Oxygen Furnace



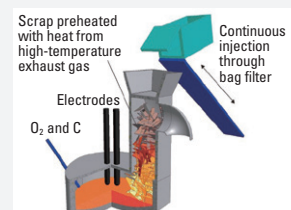
Electric Arc Furnace

This method produces steel by using heat from an arc discharge to melt scrap iron, as opposed to refining iron ore into pig iron in a blast furnace.

Highly Efficient Electricity Use and Dioxin Decomposition ECOARC™

ECOARC™ dramatically reduces unit power consumption compared to conventional electric arc furnaces by preheating scrap iron using heat from the exhaust gas. Dioxins generated by the reaction are decomposed during secondary combustion, making this process environmentally friendly.

ECOARC™ is the registered trademark of JP Steel Plantech Co.



Rolling

Continuous Rolling Saves Energy without Wasting Heat
Endless Rolling

The Chiba No. 3 hot strip mill is capable of continuously joining and rolling sheet bars, semi-finished products that are 30 to 40 millimeters thick and produced by rough-rolling slabs. This process ensures stable-quality finish rolling while conserving energy.



Reheat Furnace

High-efficiency Burners Save Energy and Cut CO₂
Regenerative Burners

This regenerative burner system alternately ignites a pair of burners integrated with the heat reservoirs at intervals of several tens of seconds. While one burner is burning, the exhaust gas passes through and heats the other burner's heat reservoir, resulting in highly efficient combustion. It is being used in reheat furnaces and melting furnaces to save energy and reduce CO₂ emissions.

Continuous Rolling Improves Thermal Efficiency
Continuous Annealing Line

Hard steel sheets produced by a cold rolling line are softened for press molding by applying heat in the annealing process. JFE Steel's continuous annealing line is an energy-efficient method for continuous cooling and heating that is used to produce diverse products.



Reheat Furnace

Steel slabs produced by the continuous annealing line are reheated for easier processing in advance of the rolling process.



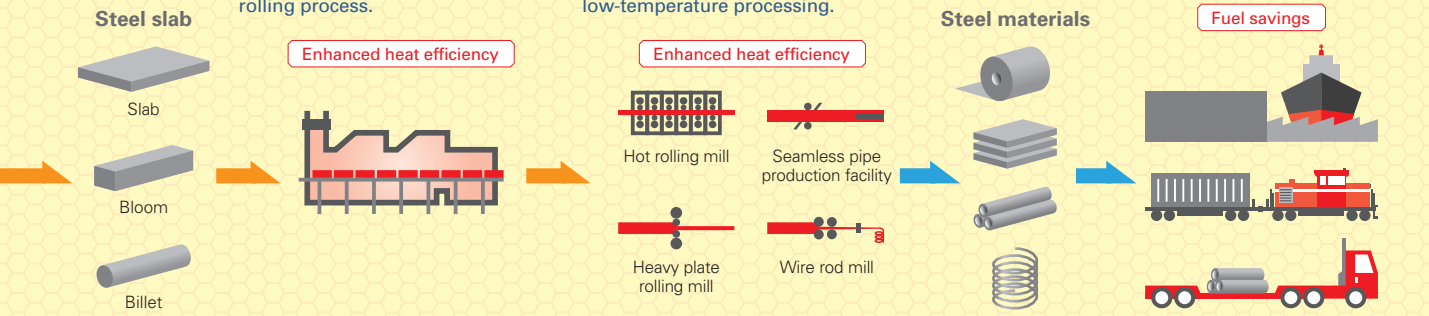
Rolling

Strong roll-separating force is applied to the steel slabs to shape them into plates and long bars. There are various rolling methods for each product shape, including hot rolling for high-temperature processing and cold rolling for low-temperature processing.



Shipping

Steel products manufactured at steelworks are delivered to users by ship, rail, truck and other means of transport. A modal shift to ship and rail transportation modes is helping to lower CO₂ emissions.



Shipping

Japan's First Electric-propulsion Ship for Steel Transport
Hyper-Eco Electric-propulsion Ship



JFE's electric-propulsion ship for transporting steel products is the first vessel of its kind in Japan. Using electric motors to rotate the propellers, it reduces fuel consumption and CO₂ emissions by 5% compared with conventional diesel ships.

Increased Capacity for Transport Efficiency and Reduced Emissions
Next-generation Distribution Vehicles

The weight of steel coil cars was reduced by changing the frame structure, mounting aluminum wheels and replacing double tires with single tires. Reduced vehicle weight enables increased loading capacity, thereby raising transport efficiency and cutting CO₂ emissions.



Energy Savings for Ships in Service
Air Lubrication System for Domestic Fleet

A system for conserving energy in ships uses bubbles emitted from blowers at the bow to reduce water resistance on the hull's surface. The system was installed in domestic ships currently in service, eliminating some of the needs to build new vessels. CO₂ emissions of approximately 7% are achieved thanks to the system.



Joint Deliveries by Group Companies
More Efficient Distribution

Steel products stored in warehouses, formerly transported independently by each JFE company, are now consolidated in joint deliveries covering overlapping routes. Transport efficiency is being enhanced by sharing warehouse information to organize joint deliveries on overlapping routes. The range of products and routes for joint delivery will be expanded to further reduce energy consumption.

Minding the Environment while Stabilizing Resource and Energy Supplies

JFE strives to conserve energy and reduce environmental load for final-product users by supplying high-performance steel materials.

Reducing Alloys to Conserve Resources and Shorten Production UHP® 15CR and UHP® 17CR Oil Country Tubular Goods

UHP® 15CR and UHP® 17CR are high-strength steel tubes that exhibit high corrosion resistance in the severe environments of deep oil and natural gas wells. Compared to conventional products, these products conserve resources by cutting back on alloys and shortening production processes. To date, more than 6,000 tonnes of UHP® 15CR have been used in natural gas wells in Asia. UHP® 17CR was adopted recently for use in an offshore oil field project in Brazil.



Withstanding Extreme Environments Mighty Seam® Electric Resistance Welding Line Pipes

Mighty Seam® is an electric resistance welding (ERW) line pipe with significantly improved weld seam performance that delivers stable welding quality. It can be used for pipelines in severe environments, such as deep-sea floors or ultra-low temperature sites, which had not been possible with conventional ERW pipes. Following shipments of Mighty Seam® to North America and Southeast Asia, the pipes are now being laid in the North Sea and Norwegian Sea.

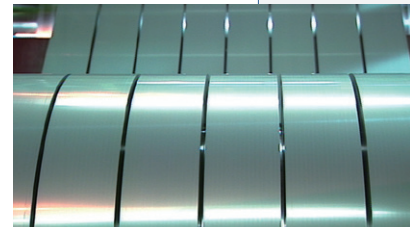


Reducing Environmental Loads with Lighter Weight High-performance LP Steel Plate®

Ships and bridges are composed of sections that are subjected to different magnitudes of force. Longitudinally profiled (LP) steel plates offer variegated lengthwise thicknesses that can be tailored to specific strength requirements, thereby reducing the weight of a ship or bridge, as well as lowering environmental loads and manufacturing costs. LP Steel Plates® received the 44th Annual Ichimura Industrial Awards – Contribution Prize in 2012 in recognition of the high quality and efficiency of its manufacturing technology and broad applications.

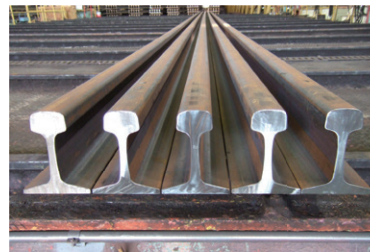
Promoting Photovoltaic Power Generation Super Core® Electromagnetic Steel Plates

JFE was the first company in the world to produce Super Core® steel sheets containing 6.5% silicon, theoretically the highest content rate and thus the best magnetic property. The core loss is less than half that of conventional electromagnetic steel plates. Also notable for their extremely low magnetostriction, the sheets promote energy conservation through their application in power-supply equipment such as photovoltaic power generators, as well as inverters, converters and hybrid cars.



Heavy Metal-free and Environmentally Friendly JAZ® Galvanized Steel Sheet with High Lubricity

Steel sheets for auto bodies require excellent press formability. In conventional galvanized steel sheets, surfaces are coated with lubricants, which inhibit weldability and adhesion. In JAZ®, however, JFE developed a technology for forming optimal nano-thick modified surface layers on galvanized steel sheets, leading to improved press formability and an environmentally friendly product that can be used as a lubricating film free of heavy metals.



High Durability and Enhanced Resource Efficiency SP3 Heavy-haul Train Rails

Freight tracks used for transporting heavy commodities such as iron ore and coal require highly wear-resistant steel rails, such as JFE's SP3. The rails are produced using an optimal chemical composition and a heat-treatment online processing technology that features high hardness, limited brittleness and excellent weldability. SP3 is now demonstrating its strengths in the iron ore and coal producing regions of South America and inner Australia.

Technologies and Products for Reducing Environmental Load ②

World's Paramount Power-generation Efficiency for Renewable Energies

JFE contributes to sustainable societies with technologies that make maximum use of diverse energy sources.

Efficient Use of Diverse Biomass Fuels Biomass Power Generation

Biomass power generation, which uses plant-derived resources as fuel, makes effective use of renewable resources and avoids CO₂ emissions. The JFE circulating fluidized bed boiler generates electricity by burning fuel that is mixed and fluidized with bed material in a process using high-speed air combustion. A wide range of fuels can be used, including biomass such as wood pellets and palm kernel shell (PKS), and even waste plastic and construction waste. In addition to economic benefits, the system is helping to revitalize forestry in local communities. JFE is receiving orders for the system from across Japan as the demand for power generation grows.



Power Generated from Carbon-neutral Palm Kernel Shell Biomass Fuel

Palm kernel shell (PKS), a residual product of palm oil extraction, is a promising source of biomass fuel. JFE is encouraging the widespread use of renewable energy by providing a stable supply of PKS from Malaysia as a carbon-neutral alternative to fossil fuel.

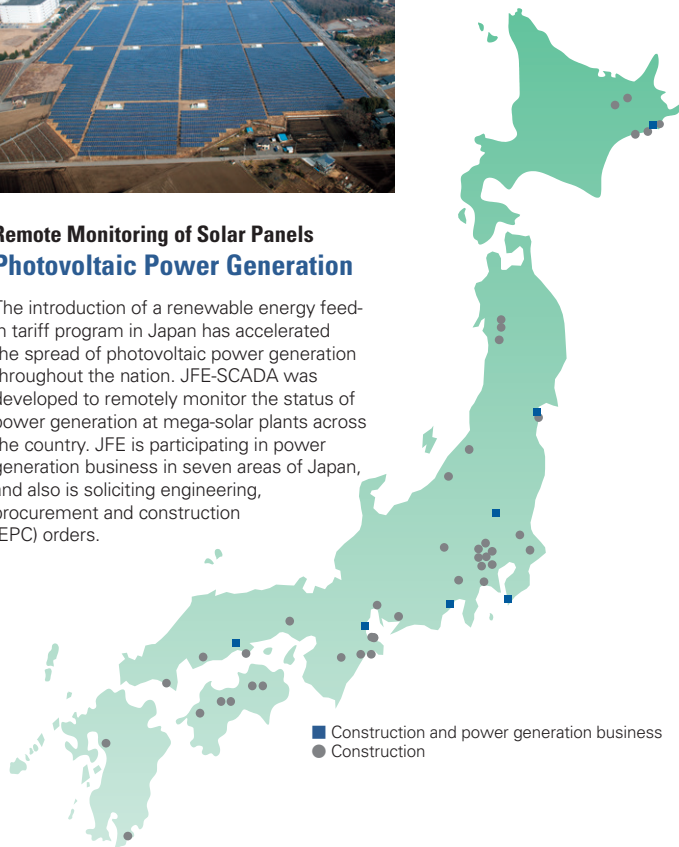


Palm kernel shell depot in Malaysia



Remote Monitoring of Solar Panels Photovoltaic Power Generation

The introduction of a renewable energy feed-in tariff program in Japan has accelerated the spread of photovoltaic power generation throughout the nation. JFE-SCADA was developed to remotely monitor the status of power generation at mega-solar plants across the country. JFE is participating in power generation business in seven areas of Japan, and also is soliciting engineering, procurement and construction (EPC) orders.



■ Construction and power generation business
● Construction

Unsurpassed Power-generation Efficiency Waste Power Generation

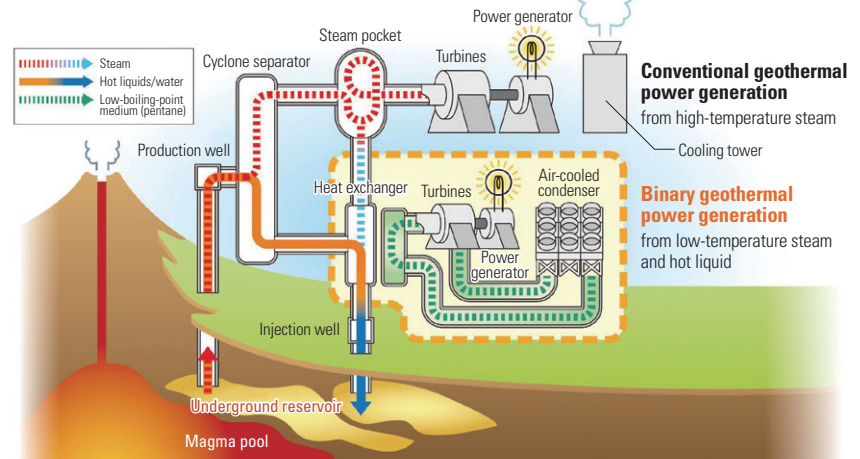
JFE's Hyper Z Series, the cutting edge in stoker incinerator systems, is equipped with the waste power-generation field's most advanced technologies for high-temperature air injection and exhaust gas recirculation. JFE is responding to growing demands for electricity by processing waste with industry-leading efficiency, thereby helping communities to meet needs both for power and recycling.



**Zero-waste System
Geothermal Binary Power
Generation**

Since constructing Japan's first geothermal power plant in Matsukawa, Iwate Prefecture, JFE has supplied products to roughly half of all geothermal power plants operating in the country. JFE also delivers steam production equipment to nine of these plants. JFE's highly efficient system wastes neither low-temperature vapor nor brine, an unprecedented accomplishment for geothermal power generation systems that use turbines driven by motive fluid. Currently, construction of binary power plants with steam production equipment is underway at two sites.

Geothermal Binary Power Generation System



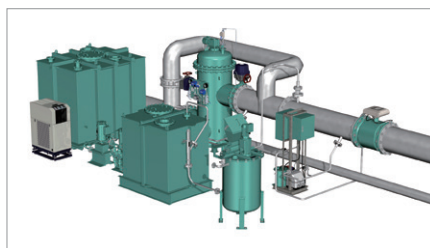
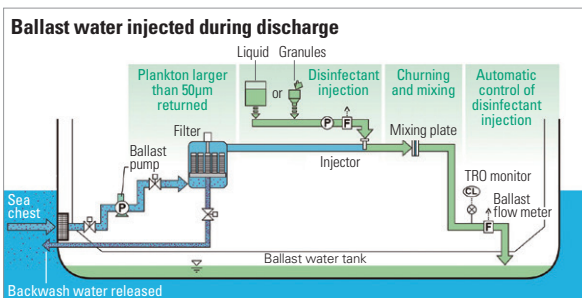
Technologies and Products for Reducing Environmental Load ③

**Restoring Ocean Environments
and Preserving Biodiversity**

JFE supports marine biodiversity with systems that clean ballast water in ships and by supplying byproducts from steelmaking that can be used in marine environmental-restoration projects.

**Marine Restoration Using Iron-steel Slag
Marine Stone®**

Marine Stone® uses iron-steel slag ground to an appropriate grain size as a material for restoring marine environments. Bottom sediments in marine areas with poor water circulation easily degrade, resulting in low-oxygen conditions that give rise to hydrogen sulfide, which causes foul odors and harms fish and shellfish. Marine Stone®, which attracts sea life that helps to suppress hydrogen sulfide, is being actively used for the remediation of bottom sediments in such environments.



**Preserving Ecosystems with Purified Ballast Water
JFE Ballast Ace Seawater Treatment System**

To maintain a ship's balance after cargo has been offloaded at a port, seawater is injected into its ballast water tank. Ballast water containing species that live in the vicinity of the local port may pose ecological problems when released at the next port. The JFE Ballast Ace system addresses this problem by removing marine organisms and disinfecting seawater in the ballast tanks. Enforcement of the International Ballast Water Control Convention, which calls for the installation of ballast-water treatment devices in ships, is envisioned in the next few years. JFE Ballast Ace is not only simple, sure and safe, it is also the world's most cost-effective system of its kind. Acclaimed around the world, JFE Ballast Ace had attracted cumulative orders for 477 ships as of May 2014.



Harnessing Human Diversity as an Organizational Strength

JFE, which is committed to leveraging its diverse human resources as an essential step in raising the company's worldwide presence, creates both opportunities and environments for employees to fully demonstrate their diverse individual qualities and abilities.

JFE Holdings Named "Nadeshiko Brand" Company in 2014

In March 2014, JFE Holdings was honored as a FY2013 Nadeshiko Brand company in a project organized by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange, Inc. The Nadeshiko Brand recognizes companies that actively support working women by promoting their careers and supporting their work-life balance. Diversity is one of JFE's key strategies to maximize the capabilities of its employees coming from varied lifestyles and family backgrounds. In addition to actively hiring women, JFE is implementing a broad range of initiatives to steadily enhance its working environments.





Long Careers after Raising Children

Shorter Working Hours for Elementary School Parents

► JFE Steel

JFE Steel is expanding its policies to help employees balance work and childcare as a company that is sensitive to the needs of working women and the parents of young children. The company's policies for childcare leave and shortened working hours cover longer periods than required by Japanese law. In FY2014, JFE Steel launched a program to subsidize part of the costs of using non-registered nursery schools and daycare facilities for sick children. It also launched a career-support program to rehire former employees who had left the company to give birth, care for children or elderly relatives, or accompany a relocated spouse.



Company Childcare Facility for Peace of Mind

► JFE Engineering

In September 2012, JFE Engineering opened its own childcare facility, called Children's Forest, inside a large building located conveniently at a train station used by many employees who commute to the company's Yokohama head office. As of April 2014, the facility was providing either full- or part-time care for about 30 children.



Preschool at Children's Forest

J Mama Meetings to Keep in Touch during Childcare Leave

► JFE Shoji Trade

JFE Shoji Trade holds J Mama Meetings that bring together female employees on childcare leave three times a year. The meetings provide reviews of the company's current status and programs, talks by employees who have returned to work, case studies of working scenarios after reinstatement, and face-to-face discussions with managers. The J Mama Meetings enable employees on childcare to feel reassured that they are still connected with their work prior to eventual reinstatement.



Exchanging information about preparing to return to work

More Initiatives for Promoting Diversity

Proactive Recruitment of Female Employees

Career-track Employees

JFE is proactively recruiting women. In FY2013, approximately 20% of newly recruited women at JFE Holdings and its operating companies were in positions with prospects for promotion (62 out of 301), while the ratio was approximately 42% for white-collar positions with prospects for promotion (47 out of 112). As of April 2014, JFE Holdings and its operating companies had 6,683 career-track employees

(4,579 in management positions), including 573 women (78 in management positions, or 1.7% of the total). New recruits in FY2014 included 42 out of 345 women in positions with prospects for promotion, of which 24 out of 126 were in white-collar positions with prospects for promotion.

Handing Down Skills



S JFE Steel has a Senior Expert Program for rehiring employees who reach the mandatory retirement age of 60, allowing them to continue working until the age of 65. The program allows older workers to fulfill their desire to work at a time when birthrates are falling and the population continues to age. Furthermore, this enables the company to maintain the skills of its veteran employees as the baby-boom generation reaches retirement age. JFE Engineering and JFE Shoji Trade have similar programs.

Sending Young Employees Overseas

E JFE Engineering's aggressive expansion of its overseas business has created an urgent need for developing globally capable personnel. In response, the company is actively dispatching young employees, including new recruits and staff members with less than five years of experience, to overseas affiliates and worksites. As of April 2014, about 30 such employees were working beyond Japan's borders.



Accepting Personnel from Locations Overseas



T Each operating division of JFE Shoji Trade provides selected personnel from overseas subsidiaries with training on general trade operations in Japan. In 2014, candidates for executive positions from all overseas locations gathered at the Tokyo head office for a seminar to help them develop their managerial skills, as well as forge useful contacts with others in the company's global family.

Seminar participant from Beijing (center)

On-site Careers at Steelworks

The public perception of steelworks as a male-dominated worksite is changing. Since FY2012, JFE has been actively recruiting women toward achieving its target of having female workers account for 10% of new hires for non-clerical positions. About 100 female employees are currently pursuing on-site careers at the steelworks. Moreover, the company is striving to create a better working environment for women by building facilities such as shower rooms and lavatories and organizing sexual harassment-prevention training.



S At JFE Steel, where about 40% of the workforce will be replaced over the next decade, handing down skills to younger employees is a major challenge. In FY2013, the company introduced the Technical Expert Program in which about 100 specialized instructors have been selected from retired employees and veteran workers. The Technical Experts work with personnel involved in specific work processes to help them maintain and strengthen capabilities by passing on knowledge and skills, including through individualized coaching for younger employees.

E In March 2013, the Win&WeDGE training center for welding skills was opened at the Heavy Industry Factory at JFE Engineering's Tsurumi Works. The purpose is to enable veteran employees to hand down their expert skills and cultivate new generations of professionals who will serve as the future foundation of manufacturing at JFE.



S JFE Steel, in addition to offering regular overseas study opportunities, is developing internationally adept human resources by providing language courses in India and encouraging technical personnel to present papers at international conferences. A new program was launched in 2014 to dispatch all new recruits overseas for training, allowing them to gain international business experience early in their careers.



T JFE Shoji Trade, which is actively promoting global business in its growth strategies, is cultivating personnel with global perspectives who can perform at high levels both in Japan and abroad. In addition to overseas assignments, the company provides employees with short-term international training and language courses. As a result, many employees are acquiring global business experience early in their careers.



Expatriate employee (second from right) in Sydney

S JFE Steel, aiming to secure competent personnel without regard for nationality, is diversifying its workforce by recruiting foreign students in Japan and students graduating from foreign universities. It is also globalizing its worksites in Japan through measures such as personnel exchanges with JSW Steel, Ltd., a business partner in India.

Employee dispatched from JSW Steel in India



E JFE Engineering is developing core engineers in Southeast Asian countries, where there is a growing need for infrastructure development. In 2013, the company welcomed 21 interns from Myanmar, Indonesia and other countries for four to eight weeks of on-site training.

Corporate Governance

Corporate Governance Policy

JFE Holdings, Inc. is a holding company comprising three operating companies – JFE Steel, JFE Engineering and JFE Shoji Trade.

JFE Holdings, the core of the Group’s integrated governance system, is responsible for Group-wide strategy, risk management and public accountability.

Each operating company has developed its own system suited to its respective industry, ensuring the best course of action for competitiveness and profitability.

The holding company and operating companies separately and collectively strive to maximize corporate value for shareholders and other stakeholders.

Management

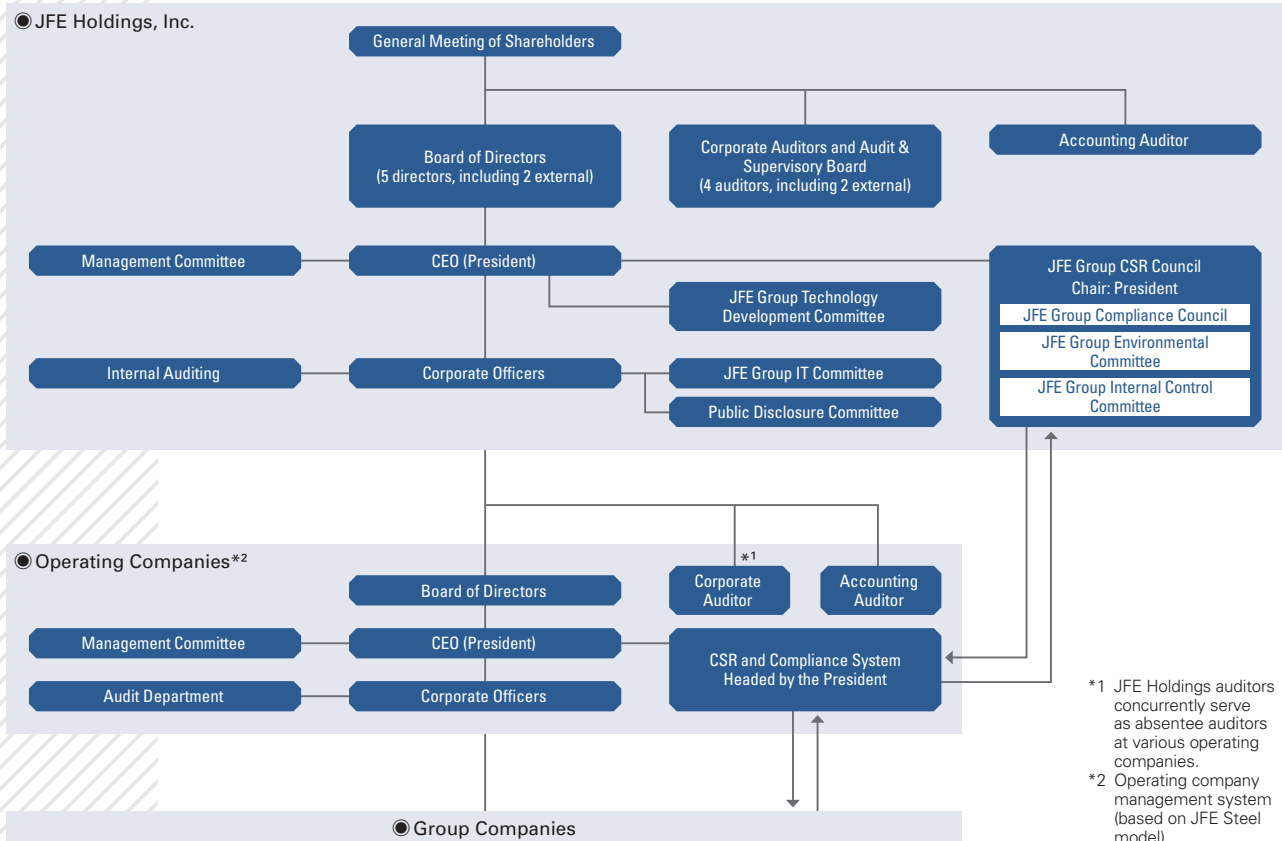
● Governance System

JFE Holdings and its operating companies all have auditors that are held in double check by the Board of Directors, which supervises operational execution, and the corporate auditors, who conduct the audits. Also, the corporate officer system is employed to separate decision making and execution for clarified authority and responsibility, as well as accelerated execution.

JFE Holdings’ Board of Directors comprises five directors, including two external directors (both independent officers). The board seeks to maintain and improve management efficiency while making decisions on statutory issues, formulating important management policies and strategies, and supervising the execution of operations. An Audit & Supervisory Board comprising four auditors, including two external auditors (both independent officers), monitors and enhances the soundness of management.

■ Corporate Governance System

Arrows indicate lines of authority and reporting
Shaded areas indicate executive organizations



JFE's governance system has been strengthened by reinforcing the fairness, objectivity and transparency of management with the aim of continuously increasing corporate value and profit for shareholders. Two external directors were added in 2007 and the term of directors was shortened from two years to one for greater versatility in developing an optimal management structure and greater clarity of responsibilities.

■ JFE Holdings External Directors and Auditors (July 1, 2014)

Position	Name	Major Concurrent Position
Member of the Board	Akimitsu Ashida	Advisor, Mitsui O.S.K. Lines Ltd.
Member of the Board	Masafumi Maeda	Executive Vice President, University of Tokyo
Corporate Auditor	Hiroyuki Itami	Director of the School of Innovation Studies, Tokyo University of Science
Corporate Auditor	Shigeo Ohyagi	Chairman of the Board, Teijin Ltd.

● Key Decision Making

JFE companies make business decisions in accordance with their respective rules and procedures, whereas JFE Holdings makes decisions about group-wide matters. Concretely, each operating company decides matters concerning the company and its affiliates through a deliberative process, after which the Board of Directors renders its decisions. JFE Holdings employs this same procedure for matters important to its own company as well as operating companies and other group businesses.

■ Structure of Management Committee

Company	Chairperson	Attendees
JFE Holdings	President	Corporate officers, president of JFE Steel, president of JFE Engineering, president of JFE Shoji Trade and corporate auditors
JFE Steel JFE Engineering JFE Shoji Trade	President	Directors, major corporate officers and corporate auditors

● Optimized Business Systems

Businesses within JFE utilize the best systems to optimize their products and operations, working to achieve unity between strategies and earnings.

■ Corporate Structures of Operating Companies

Company	System
JFE Steel	By product sector
JFE Engineering	By business division
JFE Shoji Trade	By sales division

● Group-wide Management Bodies

Technology development, IT issues and CSR initiatives shared across the Group are deliberated by Group-wide management bodies.

Group Committees
<ul style="list-style-type: none"> ● JFE Group Technology Development Committee ● JFE Group IT Committee ● Public Disclosure Committee ● JFE Group CSR Council

Internal Controls

JFE's internal control system, which includes risk management, is governed by the Basic Policy for Building Internal Control Systems. Rules based on this policy govern organizational and operational matters, information storage and management, countermeasures against criminal groups, and meetings of bodies such as the Board of Directors, Management Committee and JFE Group CSR Council. A Corporate Ethics Hotline has also been established. To enhance corporate value, the internal control system's implementation and performance are reviewed regularly to consider improvements wherever necessary.

● Strengthening Internal Controls

Internal Audits

JFE Holdings, its principal operating companies and key group companies had internal audit organizations comprising 172 people as of April 1, 2014. The organizations share information to enhance overall auditing within the group.

Internal audit managers of principal operating companies serve concurrently as internal audit managers of JFE Holdings for stronger ties within the group.

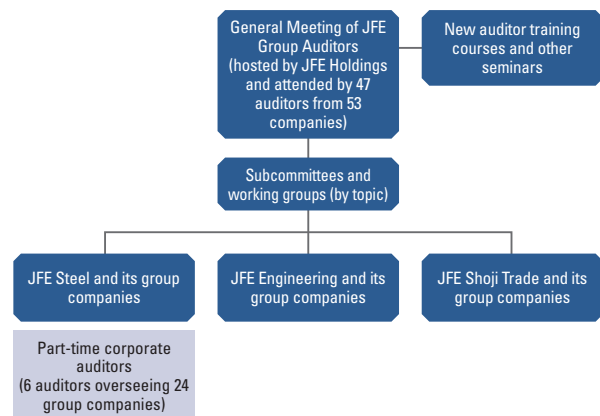
Audits by Corporate Auditors

Corporate auditors attend meetings of the Board of Directors and the Management Committee as well as other important meetings. They audit the manner in which directors execute their responsibilities by conducting hearings on operational status from directors and corporate officers and by receiving operational reports from subsidiaries. In addition to undergoing statutory audits, JFE companies take the following initiatives to ensure the effectiveness of internal auditing by corporate auditors and to strengthen coordination among corporate auditors.

- A total of 41 full-time auditors have been appointed to 32 companies, including JFE Holdings. Operating company personnel are dispatched to group companies as part-time external corporate auditors. Each absentee auditor serves three or four subsidiaries to raise the quality of the audits by their corporate auditors and enhance group governance. Six absentee auditors served 24 companies in total.
- JFE Board of Auditors includes both full-time auditors of each group company and absentee auditors. Subcommittees and working groups created to address specific issues meet autonomously throughout the year to share information, research issues and enhance understanding (see diagram). The results of their

activities are presented at the General Meeting of JFE Group Auditors and are reflected in the activities of individual corporate auditors.

■ Structure of JFE Group Board of Auditors



Cooperation between Corporate and Accounting Auditors

The corporate auditors hold scheduled and unscheduled meetings (seven in FY2013) with the external accounting auditor (Ernst & Young ShinNihon) in which the latter presents its audit plan, actual work and detailed results. The corporate auditors also receive detailed explanations regarding the accounting auditor's quality management system to confirm its validity. The corporate auditors explain their own audit plans and other matters to the external accounting auditor, and the two sides share opinions on related matters.

Cooperation between Corporate Auditors and Internal Auditing Department

The corporate auditors hold scheduled and unscheduled meetings (four in FY2013) with the internal auditing department in which the latter presents its internal audit plan, work status and detailed results. During the meetings the corporate auditors also share opinions with the department.

Operating Company Governance

To strengthen governance, JFE Holdings managers attend each operating company's General Meeting of Shareholders and Management Planning Briefing, receive reports on their business activities, discuss managerial policies and engage in other forms of shareholder oversight as representatives of the holding company.

JFE CSR System

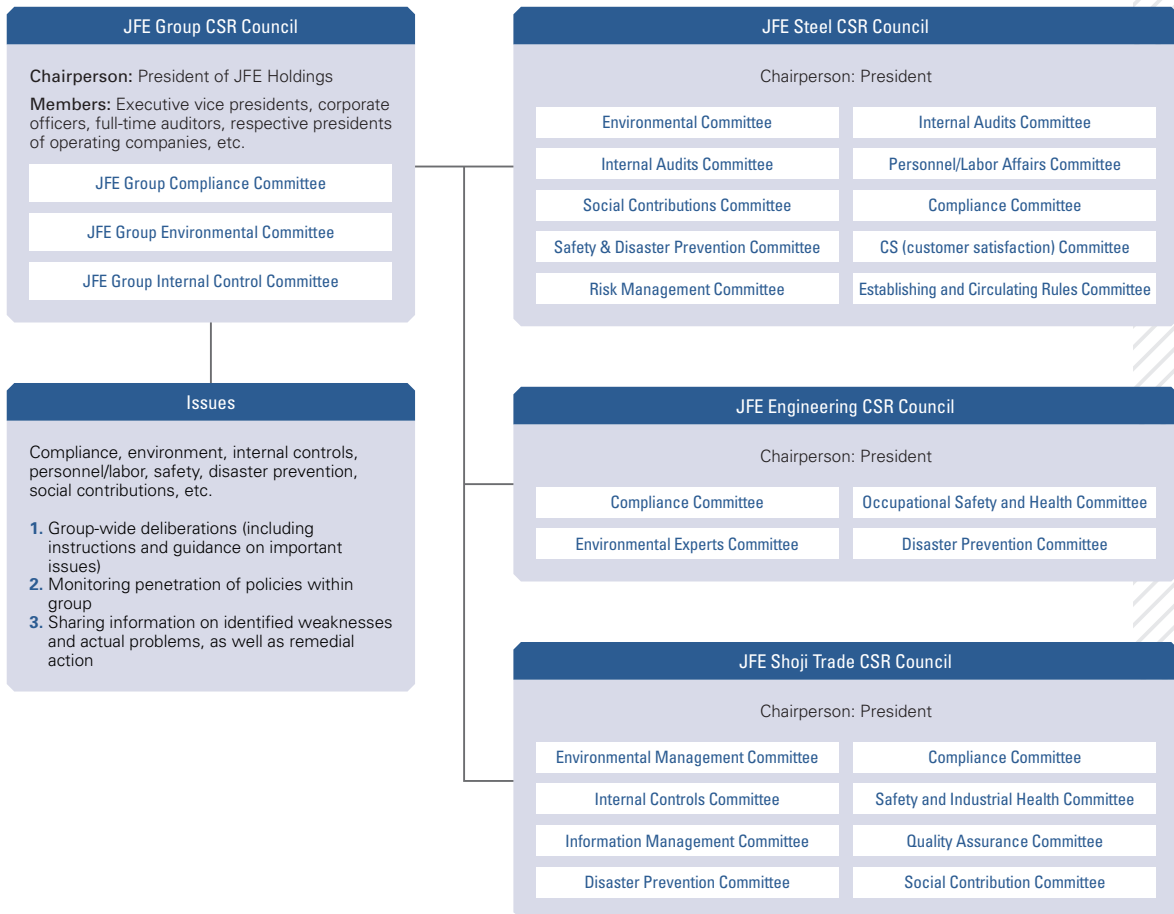
JFE, aiming to contribute to the betterment of society as a responsible member, has made the implementation and ongoing strengthening of corporate social responsibility (CSR) central to its business. The JFE Group CSR Council, which was established by JFE Holdings in October 2005 and convenes quarterly, chaired by the company president, supervises JFE CSR activities and related issues such as compliance, the environment, human resources, safety, disaster prevention, social contributions, and countermeasures against criminal groups. Related Group-wide bodies, including the JFE Group Compliance Committee, JFE Group Environmental Committee and JFE Group Internal Control Committee, report to the Council.

● CSR Audit

To ensure that CSR activities are conducted properly, JFE systematically conducts internal audits of environmental management, Antimonopoly Law compliance, expense management, overseas office management, tax law compliance, safety management and disaster prevention.

If an audit reveals a problem, the internal audit departments of JFE Holdings and its related operating companies share information to support the implementation of correct measures in CSR activities throughout JFE.

■ CSR Promotion Structure



Compliance

Basic Policy

Compliance lies at the foundation of JFE. Compliance with laws and ethics is vital to maintaining integrity and soundness in business because it helps to ensure that all members of the organization deepen their knowledge and awareness of compliance and act accordingly on a daily basis. To that end, JFE is strengthening related systems and implementing measures for thorough compliance.

Compliance System

JFE has a Standards of Business Conduct to help employees implement corporate activities based on the Corporate Vision, as well as these Standards, and to cultivate awareness among all JFE Group executives and employees to ensure rigorous adherence to corporate ethics.

JFE also has a Compliance Council. Chaired by the president, it generally convenes on a quarterly basis to deliberate basic policies and key issues, and supervise their implementation. Each operating company also has its own system for promoting and supervising compliance in business through similar committees. In addition, operating companies have introduced a Corporate Ethics Hotline to ensure that important information regarding compliance is directly communicated from their front lines to top management.

Ensuring Thorough Compliance

● Using the Guidebook Effectively

As part of its ongoing effort to raise compliance awareness, the JFE Group has compiled a Compliance Guidebook that is distributed to executives and employees. In response to global business development, an English language version of the Guidebook has been created for use by staff members in overseas offices.

The guidebook presents over 100 case studies written in plain language to help employees understand JFE's standards for complying with laws and regulations, as well as internal rules based on social norms. Situations occurring in daily operations that can be unclear or confusing are provided, with each case accompanied by an explanation prepared by the relevant department and reviewed by an attorney for legal compliance. JFE Shoji Trade also has its own version of the Compliance Guidebook, containing explanations of 25 case studies that are unique to the trading business.

● Compliance Training

JFE conducts compliance training on topics such as antimonopoly law, insider trading, security export controls, the Construction Business Act, and the Foreign Corrupt Practices Act. Compliance education includes training for everyone from managers to new hires. In addition, JFE Steel and JFE Shoji Trade provide training through e-learning.

■ Compliance Training Conducted by Each Company

Company		Group Training		E-learning	
		Number of Courses	Attendees*	Number of Companies Involved	Attendees*
JFE Steel	Parent	72	3,167	1	15,102
	Group	451	12,942	21	11,204
	Total	523	16,109	22	26,306
JFE Engineering	Parent	97	1,665	–	–
	Group	28	1,461	–	–
	Total	125	3,126	–	–
JFE Shoji Trade	Parent	65	649	1	840
	Group	102	1,347	7	318
	Total	167	1,996	8	1,158

* Aggregate total

● Compliance Rules Awareness Activities

Each year in October, JFE Steel observes its Compliance Month and conducts compliance-awareness activities. Each department in Japan and overseas has sessions in which participants read legal texts, internal regulations and other materials and information placed in the Compliance Guidebook or posted on the company intranet by the Legal Affairs Department. Such efforts foster greater awareness of compliance and encourage employees to consider if their work practices are in compliance. Based on activities conducted during Compliance Month, work practices and company rules are revised as required.

JFE Shoji Trade conducts readings of rules, such as internal regulations, on three separate occasions every quarter and holds its own Compliance Month during which employees participate in readings of the Guidebook and discussions to deepen understanding and awareness.

Awareness Surveys for Confirmation and Improvement

JFE conducts its Corporate Ethics Awareness Survey to quantitatively assess employees' awareness of ethics, identify possible risks and help employees stay informed about JFE's corporate vision.

Recent surveys indicate that many employees believe compliance awareness and behavior have strengthened at JFE. In particular, awareness of corporate policies and values is thought to have improved greatly, and compliance systems and activities are said to have steadily taken hold among employees.

The results of these awareness surveys are reflected in practical measures aimed at overall improvement of the organization and employee training.

Internal Whistleblowing System

JFE's Corporate Ethics Hotline helps to ensure that important information regarding compliance is communicated from the front lines to top management rapidly and accurately. The hotline is operated under rules and regulations that protect people who report information or seek advice. After the facts of a case are reviewed, the outcome is communicated to the caller. Open to all group companies, the system serves as a pillar of compliance enhancement in JFE.

■ Cases Handled by Corporate Ethics Hotline

Company	Cases
JFE Holdings and operating companies (JFE Steel, JFE Engineering and JFE Shoji Trade)	42

Antimonopoly Law Compliance Initiatives

JFE Steel and JFE Engineering seriously view past violations of the Antimonopoly Law and continue to implement thorough measures for eliminating the possibility of future infringements. The internal audit departments of both companies constantly monitor contact with other companies to avoid Antimonopoly Law violations. They also check to see that initiatives aimed at promoting legal compliance are functioning properly. Audits are regularly conducted at all business locations, including branch offices. In addition to the operating companies, other group companies also implement related compliance initiatives.

● Key Initiatives

JFE Steel and JFE Engineering have undertaken the following key initiatives:

- Commitments by top management
- Antimonopoly Law training based on specific cases of how violations can seriously impact companies and individuals
- Upgraded regulations to better clarify how violations could lead to disciplinary action
- Strengthened rules on contact with other companies in the same industry

In addition, JFE Steel monitors the activities of external organizations to which its sales department belongs, and JFE Engineering works to ensure that its order-acceptance process is transparent.

JFE Shoji Trade pursues initiatives such as providing training and e-learning on the Antimonopoly Law, conducting surveys on the state of legal compliance and organizational membership, and recording contacts with other companies in the same market.

Rejection of Organized Crime

The JFE Group Policies for Addressing Antisocial Forces works to ensure sound company management through uniform organization-wide measures under JFE's compliance system in response to antisocial (organized crime) activities.

JFE has its own Regulations for Addressing Violence Directed at Companies, including a manual on the initial steps that should be taken in responding to violence targeting companies.

Response to Risk

● Intellectual Property Management

JFE meticulously manages intellectual property across its diverse business activities. To prevent infringing on third-party intellectual property, JFE monitors the latest information on intellectual property related to its business and implements all necessary measures. It regularly provides training on the topic for employees. With regard to intellectual property owned by the Group, efforts are underway to bolster competitiveness by improving collaboration between business and R&D divisions, while also exercising intellectual property rights to protect and build on such achievements.

● Privacy Protection

JFE has formulated the Basic Policies for Protection of Personal Information on the handling of personal information. Under these policies, JFE protects personal information based on internal rules concerning information management, and by informing, educating and training employees on these rules and other applicable laws and ordinances.

● Information Security

JFE has established an information management system based on its Information Security Management Regulations. It works to effectively and efficiently conduct business by implementing audits based on a voluntary checklist for information management and activities for bolstering the security of information transmitted between companies within the Group.

Major Information Security Initiatives of JFE

Prevention of Improper Use of Information

1. Authentication measures of JFE's integrated security system
2. Personal computer startup authentication using passwords and additional factors (IC cards, etc.)

Prevention of Information Leaks

Measures against Loss or Theft

1. Biometric authentication for server room access
2. Office-access control
3. Use of security wires to protect hardware
4. Hard disk encryption for mobile computers
5. Encryption of removable media

Measures against Information Leaks

1. Limits on use of removable media and maintenance of logs
2. Checking e-mail sent to external parties
3. Retention of all e-mail sent to external parties
4. Limits on use of Web-based e-mail
5. Limits on use of Web-based bulletin boards, etc.
6. Preventing access to the group network via non-authorized computers

Measures against External Threats

1. Measures to prevent malware
2. Firewall restrictions on outside access
3. Detecting and protecting against suspicious communications

Protecting the Environment

JFE Group CSR REPORT 2014

1

Management

2

Protecting the Environment

3

Contributing to Society's Development

Environmental Management

Environmental Philosophy and Strategies

JFE, aiming at “existing in harmony with the global environment” and “enhancing the global environment,” is guided by an environmental philosophy and strategies that actively encourage the development of innovative technologies and international cooperation for protection of the global environment.

Environmental Philosophy

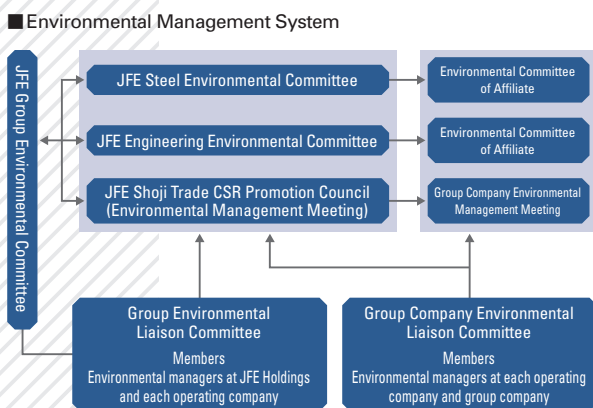
JFE puts a top priority on protecting and enhancing the global environment to maintain its business in harmony with the environment, ultimately for the prosperity of society as a whole.

Environmental Strategies

1. Reduce the environmental impact of all JFE businesses
2. Contribute through technologies and products
3. Conserve resources and energy
4. Communicate with society
5. Facilitate international cooperation

JFE Group Framework for Environmental Management

The JFE Group Environmental Committee, chaired by the president of JFE Holdings and operating under the JFE Group CSR Council, manages environmental issues by setting objectives for environmental protection, monitoring progress and working to improve environmental performance. Specialized committees set up by each operating company and affiliate implement specific corporate activities.



Environmental Management System

Acquisition of ISO 14001 certification is an important part of each JFE company’s voluntary environmental program. All JFE Steel and JFE Engineering production sites and JFE Shoji Trade business offices in Japan have received certification. Together with their affiliates, they maintain their certification status through regular inspections and reviews.

S JFE Steel has an Environment Management Department at its head office and in each business office, as well as an Environmental Committee chaired by the president and an Environment Management Committee in each local office. All JFE Steel production sites have obtained ISO 14001 certification. Its major subsidiaries and others have also acquired ISO 14001, comprising mainly the production sites of 38 companies and all or part of the operations of 18 companies.

E JFE Engineering obtained ISO 14001 certification in 1999. The structure and operation of its environmental management system encompass the head office and branch offices in Osaka and Nagoya, the Tsurumi and Tsu works and about 400 construction sites each year. Worksites have reduced their environmental impact through continuous implementation of environmental management systems. Environmental protection is now firmly grounded in daily operations.

T JFE Shoji Trade obtained ISO 14001 certification of its head offices in Tokyo and Osaka and branch office in Nagoya in 2000. Subsequently, 75 business sites at 21 subsidiaries and others, including 16 branch and sub-branch offices and 7 manufacturing companies, have also been certified, enabling continuous implementation of environmental management systems encompass the entire JFE Shoji Trade group.

Environmental Auditing

In addition to auditing by ISO 14001 certification organizations, certified operating companies are also audited internally by specialized auditors trained by external organizations.

S Once a year, the Audit Department and the Environment, Disaster Prevention and Recycling Department at JFE Steel's head office conduct an environmental audit at each operational site. Companies are grouped on the basis of the results of risk assessments that take sites and other aspects into account. Also, extensive audits using a self-check sheet are conducted once every one to five years. A total of 194 business sites of JFE Steel group companies require auditing, of which 33 were audited in FY2013.



Environmental audit

E JFE Engineering conducts environmental inspections of all construction sites to confirm legal compliance in daily operations. In addition, sites with relatively significant environmental impact are selected from among the Tsurumi and Tsu works, construction sites and group companies, and the Safety and Environment Department audits compliance with environmental laws and regulations.

T At JFE Shoji Trade, the Environmental Management Team of the head office's Audit Department conducts an environmental audit of all group companies in Japan, generally on a three-year cycle. The audits primarily focus on confirming legal compliance related to noise and vibrations at manufacturing affiliates and for waste at sales affiliates.

Environmental Education

JFE actively provides education to enhance its corporate culture of environmental protection in which all employees participate. Education at operating companies includes training for new recruits and newly promoted employees, and for environmental preservation activities by position and job.

S JFE Steel encourages employees to obtain qualifications as pollution control managers. In FY2013, 90 persons were qualified, bringing the total since 2005 to 1,164 people. In FY2011, a new training program was launched for environmental managers in group companies. The program was held three times in FY2013. In addition, the JFE Steel group's Environmental Liaison Committee trains employees in compliance with environmental laws once a year and disseminating regulatory revisions twice a year. Training to brush up skills related to waste management takes place five times a year.

E JFE Engineering seeks to raise employee awareness of environmental protection and enhance their understanding of environmental laws and regulations through regular training in relevant responsibilities associated with office work, design and construction work. In FY2013, JFE Engineering provided education on general environmental issues and environmental laws and regulations, and training for internal environmental auditors and environmental inspectors. Employees of group companies also attend environmental education courses aimed at ensuring compliance and raising awareness of environmental protection initiatives throughout the group.

T JFE Shoji Trade has created its own checklist on compliance with environmental laws, which is distributed to all group companies as part of environmental education. Each company performs a self-check to ensure understanding and rigorous compliance. In addition, JFE Shoji Trade provides all employees with training on general environmental issues and skills for internal audit staff under ISO 14001. It also offers information on regulatory revisions and the content of laws and regulations to employees responsible for environmental management at JFE companies.

Environmental Accounting

● Environmental Accounting Approach

JFE is saving energy and reducing environmental loads by making its production facilities more efficient and introducing more environmentally friendly equipment. These investments, which are booked as environmental costs, cover equipment and facilities and other expenses for environmental protection and load reduction.

● Environmental Capital Investment and Activity Expenses

Environment-related capital investment totaled ¥28.0 billion and expenses amounted to ¥123.8 billion in FY2013. In terms of capital expenditure, the majority was invested in air pollution countermeasures that amounted to ¥12.3 billion, followed by ¥8.4 billion for energy saving and other global warming countermeasures and ¥4.4 billion for environmental research and development.

Environmental activity expenses included ¥39.2 billion targeting global warming, ¥33.6 billion for air pollution countermeasures, and ¥17.6 billion for recycled industrial water. Environment-related R&D expenses came to ¥13.1 billion. Environment-related capital investment as a percentage of overall capital investment was roughly 28%.

● Capital Investment

To save energy and reduce environmental loads stemming from production, JFE actively invests in plant and equipment incorporating environmental technologies. Cumulative investment in energy saving, totaling ¥443.6 billion since 1990, has enabled JFE to achieve energy efficiencies that are among the highest in the world. In total, JFE has invested ¥603.9 billion in environmental protection measures since 1973.

● Results of Environmental Activities

Environmental protection costs include efforts to lower unit-based CO₂ emissions to prevent global warming and measures to reduce final disposal waste through active recycling to conserve natural resources. Other aims include reducing discharges of airborne and waterborne substances that have pollution loads, and complying with all statutory regulations concerning exhaust gas emissions and discharged water.

The monetary value of energy savings realized through environmental capital investments and expenses in FY2013 is estimated at about ¥2.2 billion.

■ Breakdown of Environmental Costs

Main Items		FY2012		FY2013	
		Investment (million yen)	Cost (million yen)	Investment (million yen)	Cost (million yen)
Management	Monitoring and measurement of impact, EMS expenses and education	300	2,300	100	2,400
Global warming countermeasures	Energy saving and efficient use of energy	7,600	37,500	8,400	39,200
Conservation of natural resources	Recycling industrial water and waste management	300	17,300	800	17,600
	Others, including recycling and waste management of internally generated materials	300	4,700	100	4,500
Environmental protection	Air pollution countermeasures	6,400	29,600	12,300	33,600
	Water pollution countermeasures	900	9,300	1,900	9,900
	Others, including prevention of soil contamination, noise, vibration and subsidence	10	1,800	10	1,400
Other	Charges, etc.	—	1,300	—	1,400
R&D	Technologies for protecting the environment, saving energy and preventing global warming	5,800	13,800	4,400	13,100
Societal activities	Support for nature conservation and forestation activities, information disclosure, exhibitions and public relations	—	700	—	700
Total		21,600	118,300	28,000	123,800

Scope of calculation: R&D at JFE Steel Corporation and JFE Engineering Corporation

Value Chain Initiatives

● Basic Approach

Under the concept of life cycle assessment, JFE strives to reduce environmental loads throughout its supply chains. Also, operating companies work with business partners to reduce their use of materials that have environmental loads.

● Promoting Green Procurement

JFE procurement policies help to conserve resources and protect the environment by ensuring adherence to all laws and regulations, and to the procurement principles prescribed under the Charter of Corporate Behavior developed by the Japan Business Federation. Going forward, JFE expects to accelerate efforts related to supply chains.

Environmental Risks and Opportunities

● Preventing Global Warming

Steel business accounts for 99.8% of JFE's CO₂ emissions, so reducing such emissions in steelmaking processes is a major goal. Japanese steelmaking processes have achieved the highest levels of energy efficiency in the world, for which JFE has played a key role by helping to reduce CO₂ emissions worldwide through international cooperation and other activities. JFE continues to contribute to emissions reduction through its proprietary high-performance steel materials, which save energy and facilitate engineering technologies for renewable energy sources.

Stricter regulations on global CO₂ emissions could place some restrictions on JFE activities centered on steel, but new regulations also present opportunities for growth and heightened competitiveness in increasingly low-carbon societies. JFE is committed to achieving even greater energy savings by continuously developing innovative technologies.

● Prevention of Pollution

JFE steadfastly complies with regulatory standards through capital investment in environmental protection. The transfer and widespread application of proprietary environmental-protection technologies, mainly in developing countries, are contributing to pollution prevention on a global scale. Aiming to avoid any impact on earnings due to regulatory sanctions resulting from noncompliance, JFE is steadily strengthening internal controls.

● Resource Recycling

Economic growth in emerging countries is intensifying the challenges of finite-resource depletion and pollution prevention. Addressing these issues requires a gradual decoupling of resource use and economic growth on a global scale. JFE Steel is striving to raise its rate of recycling byproducts from steelmaking and reducing waste at construction sites. The JFE Group also contributes to global resource recycling by utilizing its steelworks infrastructure to develop recycling businesses and export iron scrap as a recyclable resource. Going forward, JFE will contribute to sustainable societies by providing further solutions for resource recycling.

● Products and Services

Tighter regulations and energy conservation in low-carbon societies may significantly alter JFE's business environment, but the development of products and services that can compete in these greener markets present major opportunities. JFE possesses proprietary products and services for reducing environmental impact and restoring the environment, such as high-performance steel materials that help save energy, engineering technology for renewable energy sources and steel slag products that sustain biodiversity through marine restoration. JFE products and services contribute to sustainable societies by disseminating the world's most advanced energy-saving and environmental technologies across the globe. Continued technology development will enable JFE to share advances that meet the world's highest standards for environmental protection.

Main Environmental Targets and Results

		FY2013 Targets
Management	JFE Steel	<ul style="list-style-type: none"> Continue to improve environmental management systems, including in Group companies
	JFE Steel	<ul style="list-style-type: none"> Voluntary activities for environmental preservation
	JFE Engineering	<ul style="list-style-type: none"> Enhancement of Group-wide compliance
	JFE Shoji Trade	<ul style="list-style-type: none"> Enhancement of Group-wide compliance
Global Warming Prevention	JFE Steel	<ul style="list-style-type: none"> Following completion of Japan Iron and Steel Federation's Voluntary Action Program, continue global-warming measures to help meet Low-Carbon Society Action Plan targets (set by Japan Iron and Steel Federation), including cutting CO₂ emissions by five million tonnes in 2020 compared to business as usual
	JFE Engineering	<ul style="list-style-type: none"> Achieve results equivalent to or exceeding voluntary action plan targets of Japan Society of Industrial Machinery Manufacturers
	JFE Shoji Trade	<ul style="list-style-type: none"> Reduce electricity consumption Reduce copy paper usage
Pollution Prevention	JFE Steel	<ul style="list-style-type: none"> Cut dioxin emissions to less than 5.5 g-TEQ per year on average in FY2012 – FY2016 under new national reduction plan
Resource Recycling	JFE Steel	<ul style="list-style-type: none"> Reduce dust and sludge and promote recycling Conduct waste-related education in response to revised data sheet on waste
	JFE Engineering	<p>At construction sites:</p> <ul style="list-style-type: none"> 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 Engineering	<ul style="list-style-type: none"> Establish targets and implement environmentally friendly initiatives in R&D, planning and design sections of each division

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

	FY2013 Results	Evaluation	FY2014 Targets	Pages
	<ul style="list-style-type: none"> Group Liaison Committee met twice to discuss environmental laws Uniformly confirmed and followed up on legal compliance 	○	<ul style="list-style-type: none"> Continue to improve environmental management systems, including in Group companies 	25
	<ul style="list-style-type: none"> Conducted environmental management training for new managers (three times for 62 participants) Conducted environmental auditing at 33 workplaces 	○	<ul style="list-style-type: none"> Voluntary activities for environmental preservation 	26
	<ul style="list-style-type: none"> Conducted environmental inspections at all construction sites Conducted group-wide environmental compliance audit 	○	<ul style="list-style-type: none"> Enhancement of Group-wide compliance 	26
	<ul style="list-style-type: none"> Self-confirmed legal compliance Conducted environmental audit of group companies 	○	<ul style="list-style-type: none"> Continue to self-confirm legal compliance 	26
	<ul style="list-style-type: none"> Implemented Eco-Processes, Eco-Solutions, Eco-Products ("Three Ecos") initiative and COURSE 50 program for developing innovative steelmaking processes 	○	<ul style="list-style-type: none"> Maintain Eco-Processes, Eco-Solutions, Eco-Products ("Three Ecos") initiative and COURSE 50 program for developing innovative steelmaking processes 	33–36
	<ul style="list-style-type: none"> Achieved average decrease of 14.9% between FY2008 and FY2012 compared to FY1997 FY2013 emissions: 13,300 tonnes 	○	<ul style="list-style-type: none"> Achieve results equivalent to or exceeding voluntary action plan targets of Japan Society of Industrial Machinery Manufacturers 	37
	<ul style="list-style-type: none"> Reduced electricity consumption by 48% compared to FY2001 Reduced copy paper usage by 0.8% compared to FY2001 	○	<ul style="list-style-type: none"> Maintain measures for reducing electricity consumption Maintain measures for reducing copy paper usage 	37
	<ul style="list-style-type: none"> Achieved emissions below 6.6 g-TEQ per year (five-year average) 	—	<ul style="list-style-type: none"> Cut dioxin emissions to less than 5.5 g-TEQ per year on average between FY2012 and FY2016 under new national reduction plan 	—
	<ul style="list-style-type: none"> Kurashiki: Reduced waste by 800 tonnes by turning oil-containing sludge into a valuable resource Chiba: Installed sludge recycling equipment 	○	<ul style="list-style-type: none"> Reduce dust and sludge and promote recycling efforts 	41
	<ul style="list-style-type: none"> Conducted training using data sheet on waste (2nd edition) 	○	—	—
	<ul style="list-style-type: none"> Recycled 99.9% of rubble Recycled 99.2% of sludge Recycled 96.2% of industrial wastes (excluding rubble and sludge) 	○	Pursue targets for construction sites and add targets modified for each division: <ul style="list-style-type: none"> 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) 	41
	<ul style="list-style-type: none"> Achieved 59 targets established company-wide 	○	<ul style="list-style-type: none"> Establish targets and implement environmentally friendly initiatives in R&D, planning and design sections of each division 	43–44

1

Management

2

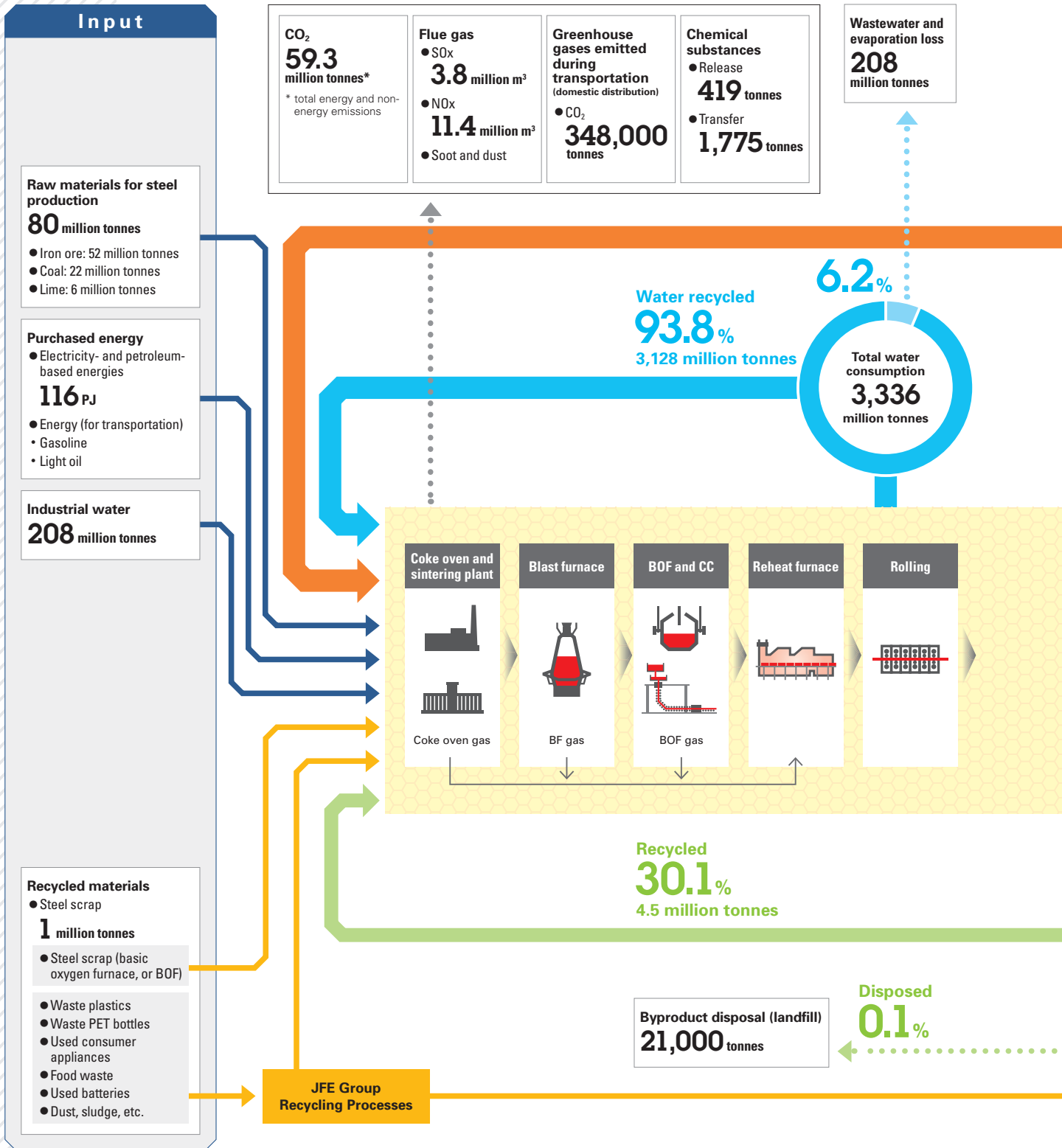
Protecting the Environment

3

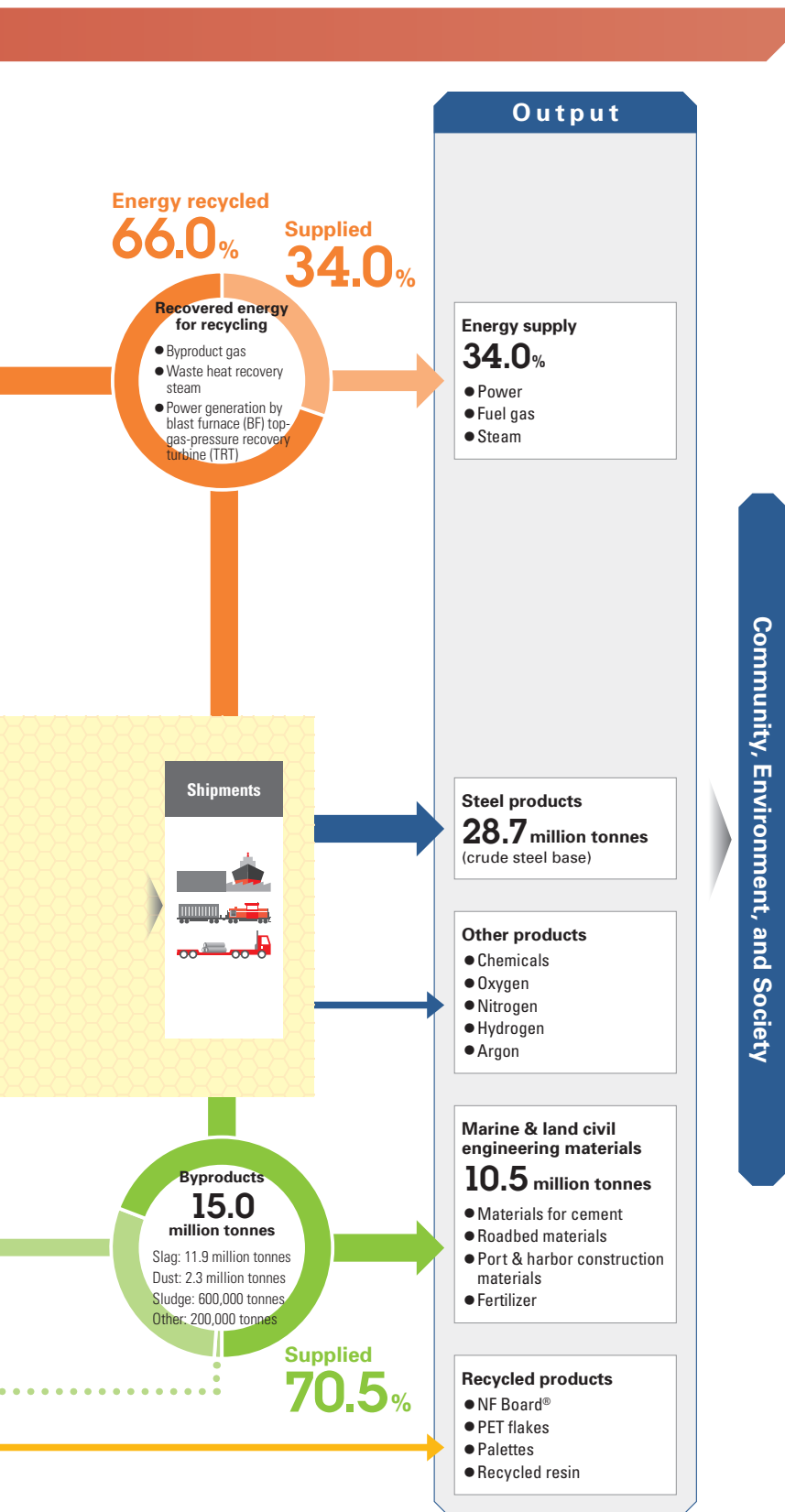
Contributing to Society's Development

Materials Flow

JFE Steel



→ Supply ••• → Emissions



JFE Engineering (Head Office and Works)

Input	
Steel	46,064 tonnes
Energy	
• Electric power purchased	26.0 GWh
• Class A heavy oil	211.2 kl
• Kerosene	59.0 kl
• Light oil	174.2 kl
• Gasoline	13.3 kl
• City gas	569,200 Nm ³
• LPG	127.3 tonnes
Water	85,766 tonnes

JFE Engineering	
• Tsurumi Works	
• Tsu Works	

Output and Emissions	
Products	40,167 tonnes
Air pollutants	
• CO ₂	13,305 tonnes
• NO _x	110 ppm
• Soot and dust	0.005 g/Nm ³
Waste generated	1,213.6 tonnes
Wastewater	96,561 tonnes
Others (PRTR)	115.6 tonnes

1

Management

2

Protecting the Environment

3

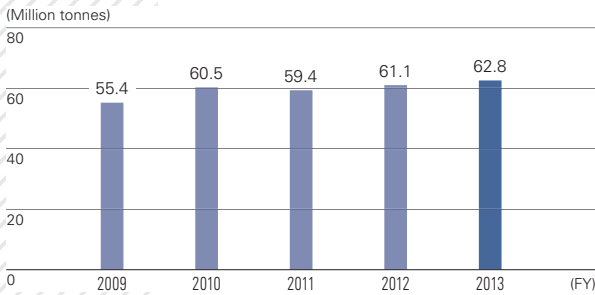
Contributing to Society's Development

Global Warming Prevention

CO₂ Emissions by JFE Group

JFE's CO₂ emissions are mainly generated by its steel business. In addition to measures to reduce such emissions, each operating company is setting targets and implementing measures to save energy and further reduce CO₂ emissions.

CO₂ Emissions of JFE Group



Note: Data cover 79 companies, including JFE Steel and 35 major domestic affiliates, JFE Engineering and 11 major domestic affiliates, and JFE Shoji Trade and 30 major domestic and overseas affiliates.

CO₂ Emissions, by Operating Company

JFE Steel	JFE Engineering	JFE Shoji Trade
62,689,000 t-CO ₂	72,000 t-CO ₂	29,000 t-CO ₂
99.84%	0.11%	0.05%

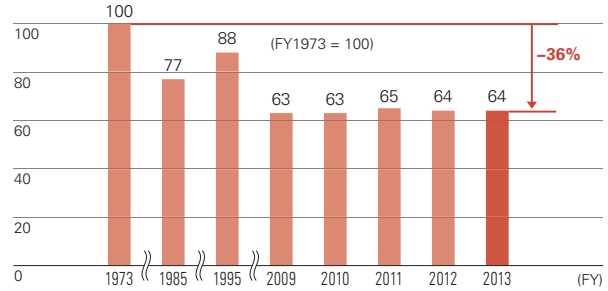
Energy Savings and CO₂ Reduction in Steelmaking

S JFE Steel strives to save energy and reduce CO₂ in its steelmaking processes, aiming to achieve the voluntary action plan targets set forth by the Japan Iron and Steel Federation.

Initiatives to Save Energy and Reduce CO₂

JFE Steel had been proactively promoting CO₂ reduction and energy savings, including the introduction of energy-saving equipment, before the Japan Iron and Steel Federation introduced its voluntary action plan.

Unit Energy Consumption at JFE Steel



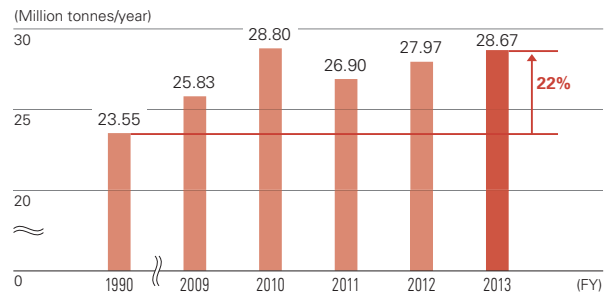
Energy Savings and CO₂ Emissions in FY2013

Energy consumption and CO₂ emissions in steelmaking are greatly influenced by production volume. To accurately assess the effects of improvements due to operational technologies and capital investments, JFE Steel is working to reduce its basic units (energy consumption and CO₂ emissions per unit of production) and related energy-conservation activities.

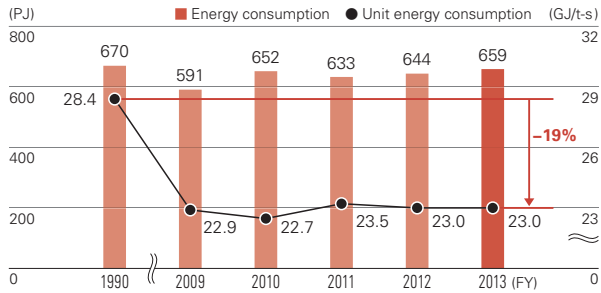
JFE Steel's FY2013 crude steel production was 28.67 million tonnes, up 3% from FY2012 and 22% since FY1990. Due to the results of ongoing energy-saving activities, however, energy consumption has remained little changed from the FY1990 level.

The company's energy consumption per unit for FY2013 was 19% below the FY1990 level at 23.0 GJ/t-steel, while CO₂ emissions per unit were down 19% from the FY1990 level to 2.00 t-CO₂/t-steel, proving the success of JFE Steel's energy-conservation activities in recent years, including its capital investments for energy conservation and the development of technologies such as Super-SINTER® OXY production technology for materials used in steelmaking.

Production of Crude Steel

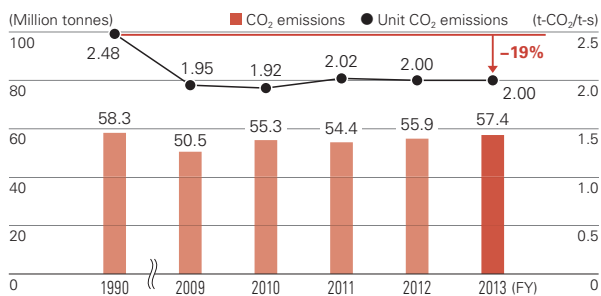


Energy Consumption and Unit Energy Consumption of JFE Steel



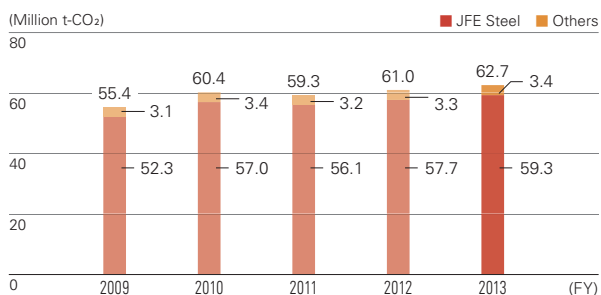
Note: Data for past fiscal years were recalculated retroactively in line with a new definition of the energy coefficient for electricity (based on the reception of electric power instead of transmission) in 2013.

Energy-derived CO₂ Emissions and Unit CO₂ Emissions of JFE Steel



Notes: The CO₂ coefficient for purchased electricity uses values from The Federation of Electric Power Companies of Japan voluntary action targets (20% reduction in basic units compared to 1990). Data for past fiscal years were recalculated retroactively in line with a new definition of electricity emission factors (based on the reception of electric power instead of transmission) in 2013.

CO₂ Emissions of JFE Steel Group

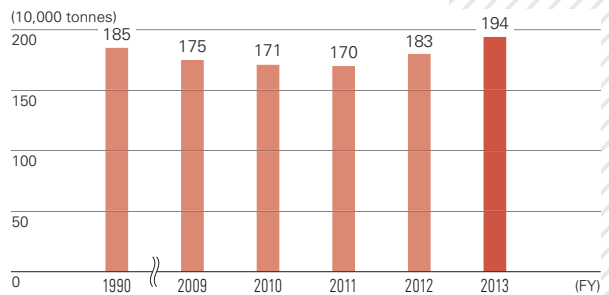


Note: Data cover JFE Steel (energy-derived and non-energy-derived emissions) and 35 major domestic affiliates (energy-derived emissions).

Non-energy-derived CO₂ Emissions

Lime and dolomite, which are used as auxiliary materials in blast furnaces and converters, emit CO₂ when broken down. Non-energy-derived CO₂ emissions in FY2013 totaled 1.94 million tonnes.

Non-energy-derived CO₂ Emissions of JFE Steel



CO₂ Reduction in Value Chain

JFE Steel initiatives to reduce CO₂ emissions include lowering the environmental impact of distribution, providing high-performance steel materials that save energy in final products and international cooperation in energy conservation and environmental technologies.

Energy Saving in Transportation

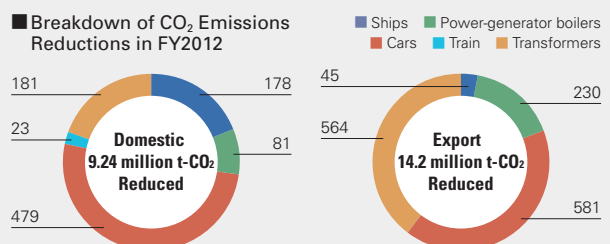
To reduce the environmental load of transporting steel, JFE Steel is actively shifting its transport modes to ships and rail. The modal shift rate* for FY2013 was 93.8%.

* Volume shipped (minimum 500 km) by rail or ship

Reduced CO₂ Emissions through High-performance Steel Materials

The Japan Iron and Steel Federation, of which JFE Steel is a member, estimates the contribution of high-performance steel materials to the reduction of CO₂ emissions (using provisional calculations by the Institute of Energy Economics, Japan). According to their estimates, major high-performance steel materials (five grades, which accounted for 7.5% of crude steel production) reduced CO₂ emissions by 23.62 million tonnes in FY2012 compared to the FY1990 level.

Breakdown of CO₂ Emissions Reductions in FY2012



Source: The Institute of Energy Economics, Japan

Initiatives by the Japanese Steel Industry

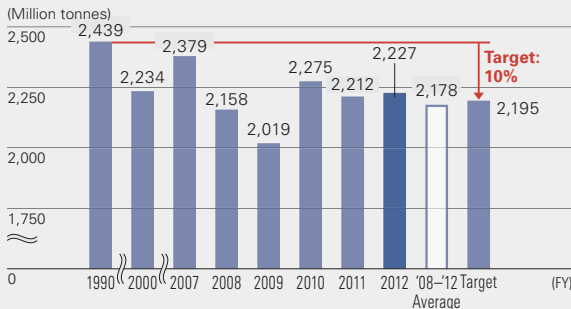
● Assessment of JISF Voluntary Action Plan Results

JFE Steel and other members of the Japan Iron and Steel Foundation (JISF) have been implementing a voluntary action plan to improve the energy efficiency of steelmaking. The plan aims to cut annual average energy consumption between FY2008 and FY2012 by 10% compared to FY1990 levels, which would be equivalent to a 9% reduction in CO₂ emissions.

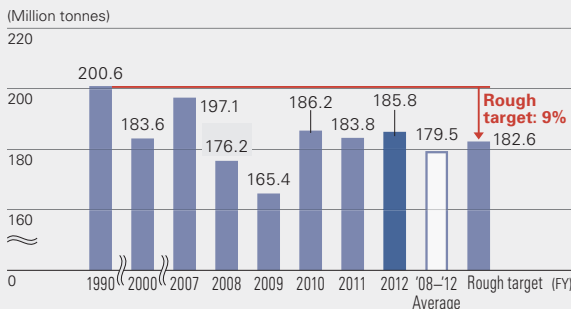
During the period from FY2008 to FY2012, 85 companies participating in the voluntary action plan (as of March 31, 2013) produced an average 101,846,000 tonnes of crude steel per year. Energy consumption was down 10.7% and CO₂ emissions fell by 10.5% compared to the FY1990 levels, thus attaining the above targets.

Note: CO₂ emissions were calculated on the basis of electricity emission factors after accounting for CO₂ credits.

■ Energy Consumption



■ Energy-derived CO₂ Emissions



Source: Compiled from "Steel Industry Measures to Combat Global Warming – Voluntary Action Plan Performance Report," Japan Iron and Steel Foundation (December 2013)

● Low-carbon Society Implementation Plan for 2020

Following the completion of the Voluntary Action Plan (2008–2012), JISF formulated the Low-Carbon Society Implementation Plan (2013–2020) based on the same four activities: Eco-Processes, Eco-Solutions, Eco-Products ("Three Ecos" initiatives)*¹ and the COURSE 50*² program for developing innovative steelmaking

processes. JFE is now implementing initiatives aimed at achieving the new plan's targets.

*¹ Eco-Processes: Energy conservation in manufacturing; Eco-Solutions: CO₂ reduction through global transfer/application of energy-saving technologies; and Eco-Products: High-performance steel sheet materials that enable CO₂ reduction

*² COURSE 50: CO₂ Ultimate Reduction in Steelmaking Process by Innovative Technology for Cool Earth 50

Eco-Processes

The Japanese steel industry is striving to further enhance its steelmaking processes, which have already achieved the world's highest levels of energy efficiency, aiming to reduce CO₂ emissions by 5 million tonnes in 2020 compared with the BAU* benchmark.

* Business As Usual: Emissions estimated on the basis of no special measures being taken

Eco-Solutions

The Japanese steel industry is contributing to CO₂ reduction around the world, particularly in developing countries, through the transfer and application of world-leading energy-saving technologies developed through Eco-Processes. These Eco-Solutions are forecast to contribute to the reduction of about 70 million tonnes of CO₂ by 2020.

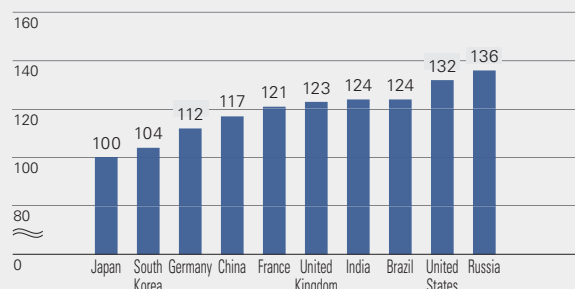
Eco-Products

The Japanese steel industry is also helping to reduce CO₂ emissions at the final product stage by providing high-performance steel materials essential to developing low-carbon societies. By FY2020, the use of major high-performance sheet materials is forecast to cut CO₂ emissions by approximately 34.0 million tonnes.

Innovative Steelmaking Process Development (COURSE 50)

The Japanese steel industry intends to achieve a further 30% reduction in CO₂ emissions through hydrogen reduction, along with capture, separation and recovery of CO₂ from blast furnace gases. The first facility is expected to come online by 2030, followed by other plants by 2050.

■ Steel Industry Energy Efficiencies (as of 2010)



Source: "2010 Energy Consumption Rate Estimates," RITE (indexed by the Japan Iron and Steel Federation)

Initiatives Under the Low-carbon Society Implementation Plan

● Ferro-Coke

Ferro-coke is a blast furnace-charging carbonous material dispersed with metallic iron and made by carbonizing briquetted low-grade coal and iron ore. The metallic iron accelerates the reduction reaction rate in the blast furnace, making the reduction of iron oxide possible with less reducing agent, which leads to significantly lower CO₂ emissions and improved energy savings. Long-duration production tests using a pilot plant at the Keihin District facilities of JFE Steel's East Japan Works and demonstration tests using the No. 6 blast furnace at the Chiba District facilities have verified that the process actually lowers the ratios of reducing agents and cokes as projected. Core technologies for the production of ferro-coke have been established in the current pilot stage, with ongoing development targeting eventual practical application.



Pilot plant facility

● COURSE 50

The objective of COURSE 50 is a 30% reduction of CO₂ emissions from steelworks by developing innovative process technologies that involve hydrogen reduction in iron ore and the separation and recovery of CO₂ from blast furnace gases. As a core participant in this initiative, JFE Steel is collaborating with other companies to develop a technology for accelerating the hydrogen reduction of iron ore. It also is conducting verification tests for the commercial application of CO₂ separation technology at its PSA (Pressure Swing Adsorption) process pilot plant in the Fukuyama District. Also underway is technological development for collecting unused sensible heat from steel slag and effectively using it as an energy source for the CO₂ separation and recovery process.



PSA process pilot plant

● ISO Standard Made in Japan

In March 2013, the calculation method for CO₂ emission intensity from iron and steel production proposed by the Japan Iron and Steel Foundation (JISF) was recognized as an international standard under ISO 14404. The method is based on the efficiency assessment indicators of the Japanese steel industry, which boasts the world's highest level of CO₂ efficiency. JFE Steel is cooperating in the international drive to reduce CO₂ emissions through its participation in the worldsteel* Climate Action Program, which uses ISO 14404 as the standard for measurement and calculation. In recognition of this achievement, JISF was awarded the 23rd Grand Prize for the Global Environment Award by the Fuji Sankei Group.



* The World Steel Association, or worldsteel, has a membership comprising approximately 170 steel manufacturers and steel-related organizations who account for approximately 85% of global crude steel production.



Award ceremony for the Grand Prize for the Global Environment Award

● Meetings for Public-private Collaboration on Iron and Steel

In February 2014, the Public and Private Collaborative Meeting (2013/2014) between the Indian and Japanese iron and steel industries was held in Japan, and in the same month the 1st Public and Private Collaborative Meeting between ASEAN and Japanese iron and steel industries took place in Malaysia. The Japanese steel industry is pursuing environmental-load reduction on an international scale by applying its proven energy-saving technologies in the Indian and ASEAN regions, where energy consumption is expected to significantly rise. At the same time, the industry is promoting ISO 14404 as a tool for calculating CO₂ and energy units for steelworks.



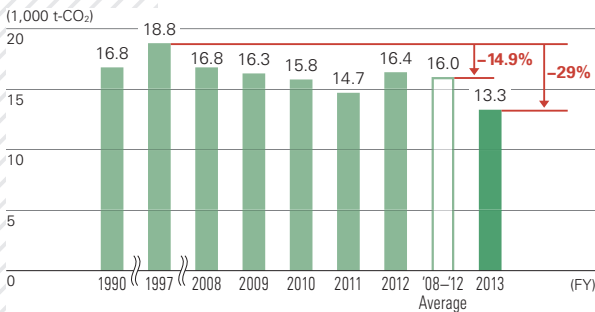
Japan-India Public and Private Collaborative Meeting

CO₂ Reduction Initiatives

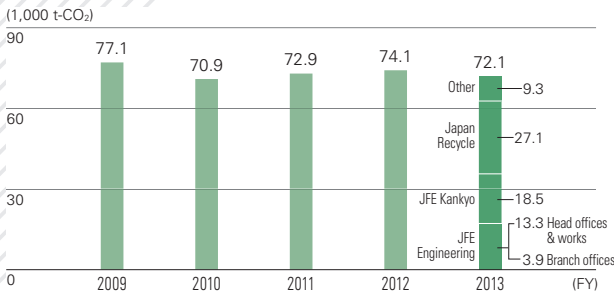
E JFE Engineering works to reduce greenhouse gases throughout society by providing products and technologies that effectively reduce CO₂ and save energy. Its contributions include renewable energy technologies for solar and thermal power and biomass power generation, and waste-to-energy and energy-saving technologies such as geothermal air conditioning systems, as well as the construction of LNG facilities to advance the transition from coal-based to LNG-based power generation.

Emissions of CO₂ from JFE Engineering's head office and works in the five-year period from FY2008 to FY2012 averaged 16,000 tonnes per year. This represented a reduction of 14.9% and achieved the Japan Society of Industrial Machinery Manufacturers' voluntary action plan target of a 12.2% average reduction compared to FY1997. Branch offices and group companies also strive to reduce CO₂ emissions from their business activities.

■ CO₂ Emissions (JFE Engineering Head Office and Works)



■ CO₂ Emissions of JFE Engineering Group

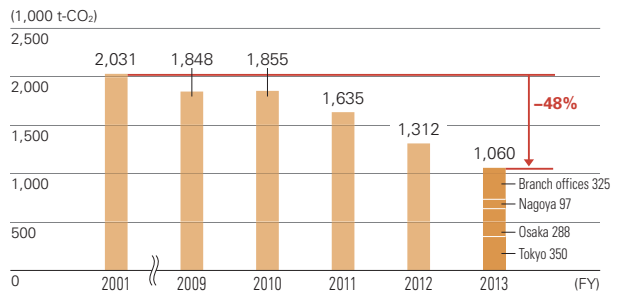


Note: The graph shows energy-derived CO₂ emissions for JFE Engineering and 11 major domestic affiliates.

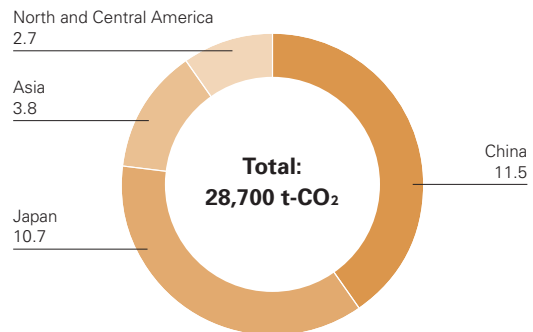
T JFE Shoji Trade domestic offices, all of which acquired ISO 14001 certification as of 2000, promote the reduced use of energy and paper, as well as the strict management of waste separation. Energy consumption has been lowered significantly through the implementation of no-overtime days, the installation of pinpoint lighting, turning off lights during lunchtime and the relocation of the Tokyo head office to a more energy-saving building. In FY2013, 1.06 million kWh of energy was consumed, a 48% reduction compared to FY2001.

To reduce paper usage, in addition to using the blank backsides of printed materials and two-sided printing, JFE Shoji Trade is moving toward paperless workplaces by digitizing records and using tablets in place of printed handouts at meetings. In addition, the company has introduced video conferencing systems in nearly 60 offices worldwide to reduce printed reference materials. Also, employees travel by public transportation to further reduce environmental loads.

■ Electric Power Consumption by JFE Shoji Trade



■ CO₂ Emissions of JFE Shoji Trade Group



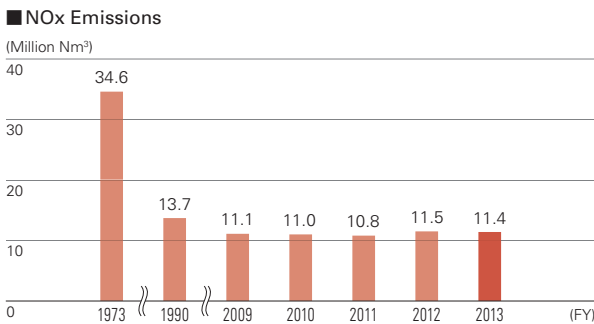
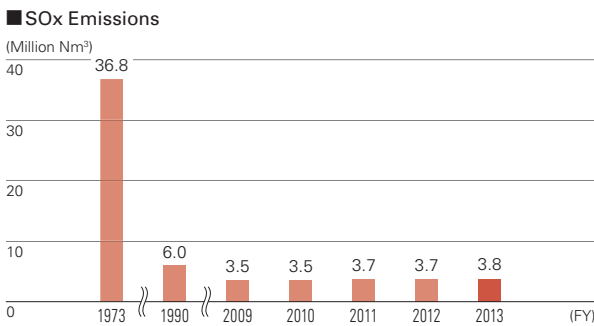
Note: The graph shows CO₂ emissions from electric power consumption by 30 companies including JFE Shoji Trade and major domestic consolidated subsidiaries (steel-processing companies).

Protecting the Environment

Controlling Air Emissions

S ● Reducing Sulfur Oxide and Nitrogen Oxide Emissions

JFE Steel is increasingly controlling emissions by installing low-NOx burners in reheat furnaces, switching to low-sulfur fuels and deploying desulfurization and denitration devices in sintering plants, all major sources of SOx or NOx emissions.



● Suppressing Dust Dispersion

JFE Steel suppresses dust dispersion through measures including the installation of sprinklers and windbreak fences in raw material yards and enhancement of on-premise cleaning, dust collectors and other dust-collection methods.



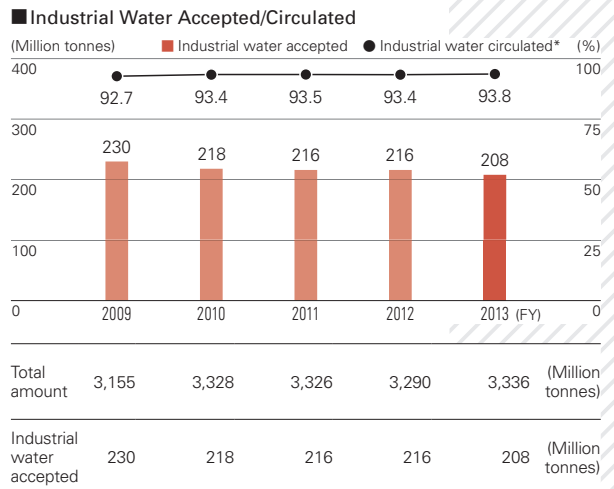
Dust screen (boundary between commercial area and East Japan Works Chiba District facilities)

E The Tsurumi and Tsu works, which have soot- and smoke-emitting facilities that are regulated by the Air Pollution Control Law and local regulations, but they set voluntary emission standards that are even more stringent. Nitrogen oxide emission concentrations and other properties are strictly controlled and regularly measured.

Efficient Use of Water and Prevention of Contamination

S ● Cyclic Use of Water

A large amount of water is used during the steelmaking process to cool facilities and process products. JFE Steel, which actively recycles large amounts of water used in its steelmaking processes, achieved the high recycling rate of 93.8% in FY2013.



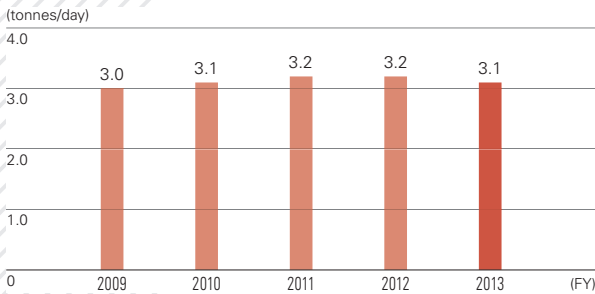
* Industrial water circulated (%) = (Total amount – industrial water accepted) / total amount × 100

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

● Preventing Water Pollution

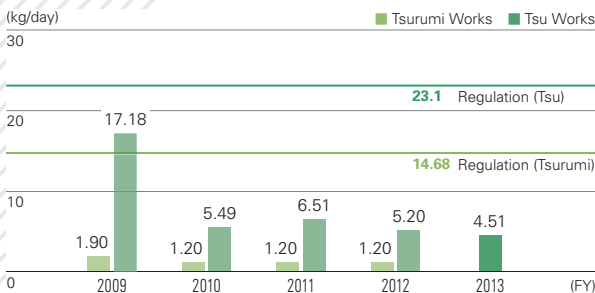
JFE Steel strives to reduce its environmental impact on waterways by thoroughly purifying water used in steelmaking processes before release into public waterways or sewers. Chemical oxygen demand (COD), the water-quality index for wastewater, was 3.1 tonnes per day, the same level as in the previous year. To prevent the release of unsuitable wastewater in the event of a facility failure, JFE Steel maintains a dual-monitoring system that checks water quality at both manufacturing and water-processing facilities, as well as outlets, to ensure prompt action as required at upstream outlets. The company also conducts drills to prepare for the handling of unsuitable water quality caused by facility failures.

■ Changes in Chemical Oxygen Demand (COD)



E Wastewater from each works is released into the public waterways or sewer system. JFE Engineering's voluntary emission standards for water quality at each outlet are more stringent than regulations, and the company regularly performs measurements to support regulatory compliance.

■ Chemical Oxygen Demand (COD) in Wastewater Released Publicly

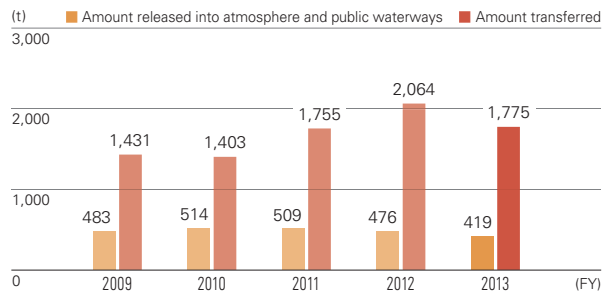


Note: The Tsurumi Works was connected to the public sewer system in FY2013.

Management of Chemical Substances

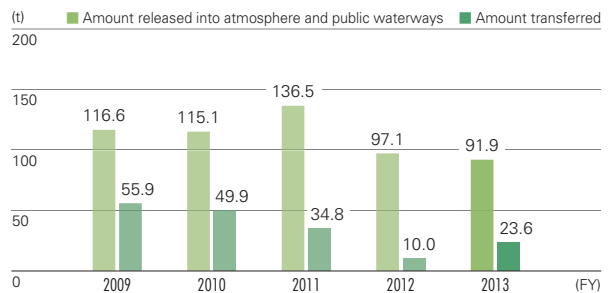
S JFE Steel also lowers environmental loads by voluntarily reducing the chemical substances it releases. In FY2013, chemical substances released into the atmosphere and public waterways totaled 419 tonnes, a 12% decrease compared to the previous fiscal year.

■ Release or Transfer of PRTR-registered Substances at JFE Steel



E Chemical substances are generated primarily from painting steel structures and welding. JFE Engineering controls the release or transfer of these substances in accordance with the Law concerning Pollutant Release and Transfer Register (PRTR Law).

■ Release and Transfer of PRTR-registered Substances at JFE Engineering



● Proper Management of PCB Waste at JFE

Polychlorinated biphenyl (PCB) waste is properly stored and managed at each business office. Treatment of high-concentration PCB waste is carried out in accordance with plans laid down by the Japan Environmental Safety Corporation (JESCO).

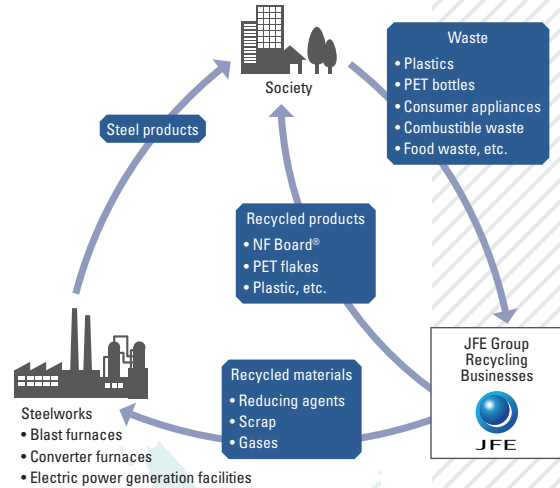
Resource Recycling

Resource-recycling Solutions

The JFE Group engages in recycling businesses as an offshoot of its steelworks recycling technologies, such as the use of plastics in blast furnaces. In the engineering field, its recycling businesses are related closely to local communities, such as the sorting and storage of waste plastics and the conversion of refuse into solid fuel.

JFE also contributes to sustainable societies by offering disposal solutions for various types of waste, including materials, chemicals and thermal recycling, aiming to minimize the amount of final disposal.

Resource-recycling Solutions



JFE Group Recycling Businesses

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

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)

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

Chiba

- Waste gasifying and melting furnace
- Food waste recycling plant

Kawasaki

- Waste plastic recycling plants (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

Examples of Recycling and Processing (FY2013)

Content	Volume
Containers and packaging plastic bought at auction	100,000 tonnes
Used plastic reused in steelmaking process	130,000 tonnes
Used fluorescent tubes processed	20 million tubes
Used consumer appliances processed	550,000 units

Detoxification of Low-concentration PCB Waste

As of the end of June 2014, only 20 privately operated plants were capable of detoxifying low-concentration PCB waste in Japan, and this lack of processing capacity has become an issue, particularly in the Greater Tokyo Area. In January 2014, JFE Kankyo Corporation became the first company in Kanagawa

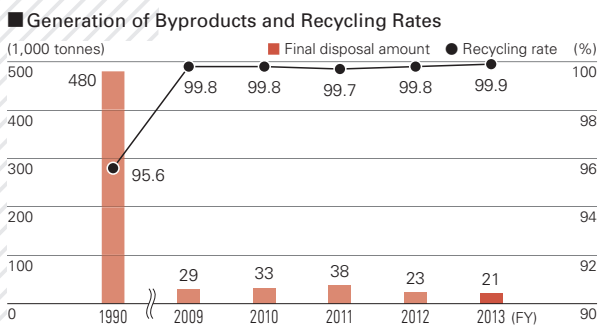
Prefecture to obtain a permit for detoxification and its Yokohama Eco-Clean Factory subsequently commenced operations. JFE has established a processing structure to assist in the effort to detoxify PCB waste by the end of FY2026, collaborating with Mizushima Eco Works Co., Ltd. at two locations in Japan.

Resource Recycling

Each operating company of JFE carries out resource recycling suited to its particular business, such as recycling byproducts from manufacturing processes, reducing waste at construction sites and promoting the 3Rs in offices. JFE continues to seek increasingly efficient resource uses in both the production and product/service phases of its businesses, including the global recycling of steel scrap.

S ● Reducing and Reusing Byproducts

JFE Steel controls the occurrence and emission of iron-steel slag (steelmaking byproduct), iron dust from blast furnaces and converters, sludge from water treatment facilities and other byproducts. Dust and sludge with high iron content are recycled as raw materials for steelmaking. All iron-steel slag is recycled for reuse in cement and other construction materials, and potential uses as an environmental remediation material are being examined. As a result of such efforts, JFE achieved a 99.9% recycling rate for slag, dust and sludge in FY2013.



● Efficient Use of Byproducts (Example)

A new application involves packing blocks of hydrated iron-steel slag inside Lagoon Mat[®] mesh baskets developed by JFE Metal Products & Engineering, Inc. for use as strong, practical breakwaters and submerged reefs.



Lagoon Mat[®] with hydrated iron-steel slag for use as a breakwater

● Recycling

E JFE Engineering establishes recycling rate targets for waste and encourages recycling under its environmental management system. At construction sites, it separates waste for disposal companies that recycle and reuse the materials, one of the ways that JFE engineering raised its recycling rate to 99.1% in FY2013. Waste in office buildings is recycled according to rules for waste separation, supported by recycling patrols in each department (conducted three times in FY2013). Yokohama has recognized the Tsurumi Works as a Workplace with Excellent 3R Activities for two consecutive years beginning in FY2012.



Tsurumi Works' certification as a Workplace with Excellent 3R Activities

T Each office of JFE Shoji Trade reduces and recycles waste including by strictly separating paper for recycling. The company's recycling business handles steel and aluminum scrap, with steel scrap exported to Asian countries for off-shore trading. While steel scrap exported from Japan is mainly transported by bulk carrier, a container loading system introduced by JFE Shoji Trade enables timely shipments of small-hot cargo, which is supporting the development of recycling societies across Asia.

Eco-friendly Products and Technologies

S

● Earthquake-resistant Linepipe HIPER®

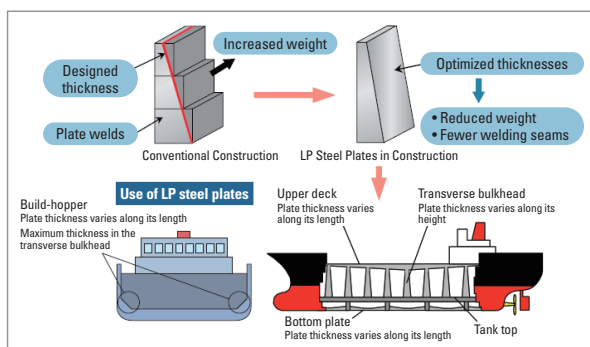
Linepipes that run through areas prone to earthquakes or permafrost need to be highly resistant to buckling caused by diastrophism. To tackle this challenge, JFE Steel developed HIPER®, a high-strength linepipe that is extra resistant to buckling, taking advantage of the company's advanced materials-design technologies and the world-leading facilities of its West Japan Works (Fukuyama District). Compared with conventional products, HIPER® features much thinner walls but with equivalent strength, thereby cutting pipeline construction costs while improving integrity. HIPER® is now used for many pipelines in earthquake and permafrost zones, playing an integral role in ensuring stable supplies of energy. The product has received various accolades, including the 60th Okochi Memorial Technology Award in FY2013 and a 2013 R&D 100 Award* in the United States.



* These awards, sponsored by the U.S. technology publication *R&D Magazine* and popularly known as the "Academy Awards of technological innovation," are presented to 100 products demonstrating technological excellence.

● High-performance LP Steel Plates®

Different parts of ships and bridges are subjected to varying degrees of stress. For example, water pressure weakens a ship from the bottom upward, so the upper parts of steel plates used in lateral bulkheads can be thinner. LP Plates® are longitudinally profiled steel plates with thicknesses that vary continuously along their lengths. Changing the thickness of a plate in accordance with the level of stress makes it possible to reduce the weight of a ship or bridge and lower environmental loads and manufacturing costs. LP Plates® were awarded the 44th Ichimura Industrial Award Contribution Prize in 2012 in recognition of their excellent quality and highly efficient manufacturing technology, as well as their broad application.



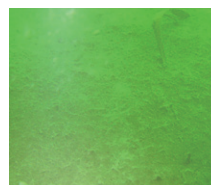
● UNI HITEN® High-strength Steel Plate for Automobiles

High-strength steel plates are increasingly being used as exterior panels for automobiles. UNI HITEN® offers tensile strengths of up to 440 MPa, compared with 340 MPa-class plates widely used in conventional automobile panels. It also features dent-resistance properties that prevent permanent set and provides resistance to surface distortion. UNI-HITEN®'s enhanced strength reduces the amount of steel required during manufacturing and improves mileage by reducing automobile weight, contributing to the efficient use of resources and energy as well as cutting CO₂ emissions. The product's superior quality earned the Nikkei Sangyo Shimbun Award of the Nikkei Outstanding Products and Services Awards in 2011.



● Marine Remediation Using Iron-steel Slag Products

In October 2013, JFE Steel and Yokohama began joint research into a remediation method for marine habitats to recover the self-cleansing capacity of the bay in front of popular Yamashita Park. Iron-steel slag products (Marine Stone®, Marine Blocks® and Marine Rocks®) were installed on the seabed to confirm their effects on improving marine environments and biodiversity. The creation of shallow artificial reefs and the purification effect of slag components led to an increase in marine life, which in turn consumed organic substances causing sludge, thus restoring the natural self-cleansing mechanisms and enhancing water clarity.



Before installation: No marine life in sludge substrate



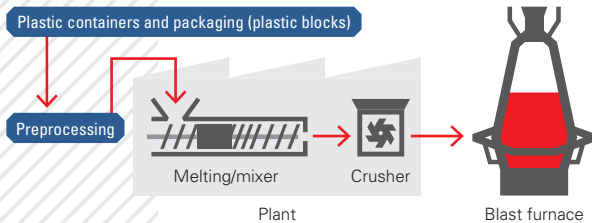
After installation: Marine life including sandworms, seaweed and shellfish were observed in May 2014.

S

● Used Plastic Pulverization Technologies for Blast Furnaces

JFE Steel's pulverization plant was the world's first facility to commercialize used plastic pulverization technology – a proprietary advanced plastic recycling (APR) process – for used containers and plastic packaging. It launched operation in the East Japan Works' Keihin District in March 2007. Compared to conventional technologies, this process more efficiently reduces iron ore in furnaces that use waste plastic, thereby conserving resources and reducing CO₂ emissions. The technology was awarded the Nikkei Global Environmental Technology Award for Excellence in 2012 and the 40th Naoji Iwatani Memorial Prize in 2013.

■ Plastic Pulverization Plant



Accepting Naoji Iwatani Memorial Prize

E

● Space-saving Multilevel Automatic Bicycle Parking System

The lack of bicycle parking spaces in urban areas not only leads to improperly parked bikes, it inhibits the wider use of bicycles for green transportation. To address this problem, JFE Engineering developed CYCLE TREE, a fully automatic multilevel parking system. Space-efficient, large-capacity storage makes this system suitable for installation in confined areas, such as around urban train stations. Speedy loading and retrieval enables users to enjoy a stress-free experience, and a broad range of options have been developed to meet different space needs. After installing the first CYCLE TREE structure in an office building in Osaka, JFE Engineering continues to market CYCLE TREE to encourage wider use of bicycles as an environmentally friendly form of transportation.



Above: CYCLE TREE integrated with a building
Left: Cylindrical underground CYCLE TREE

● Supporting Disaster Waste Disposal

JFE Engineering has been working on the reconstruction of areas affected by the Great East Japan Earthquake since its immediate aftermath in 2011. Within the short period of five months, the company built a temporary incineration plant in Sendai for disaster waste disposal, commencing operations in October 2011. Incineration of waste at four sites in Miyagi Prefecture was completed on schedule by the end of 2013, amounting to 440,000 tonnes, or roughly a quarter of all waste generated in the prefecture. In May 2014, a project was launched to incinerate disaster waste along with radiation decontamination work in three areas of Fukushima Prefecture. Design and construction of the plants are currently underway toward starting operations in 2015.



● Efficient, Environmentally Friendly Eco Paint Peeling Method

JFE Engineering is supporting the upgrade of infrastructure with a repainting method that enhances work efficiency and reduces environmental impact. Eco Paint Peeling (EPP) is an innovative paint removal method that uses a film-stripping agent to quickly delaminate paint by simply applying it to a surface. The method is safe and environmentally friendly, using a single-component water-based peeling agent that does not contain thinners or other organic solvents. The peeling process does not damage the underlying metal structure and can be completed within 6 to 24 hours after application, thus raising efficiency and lowering work time.



Several hours after applying the agent



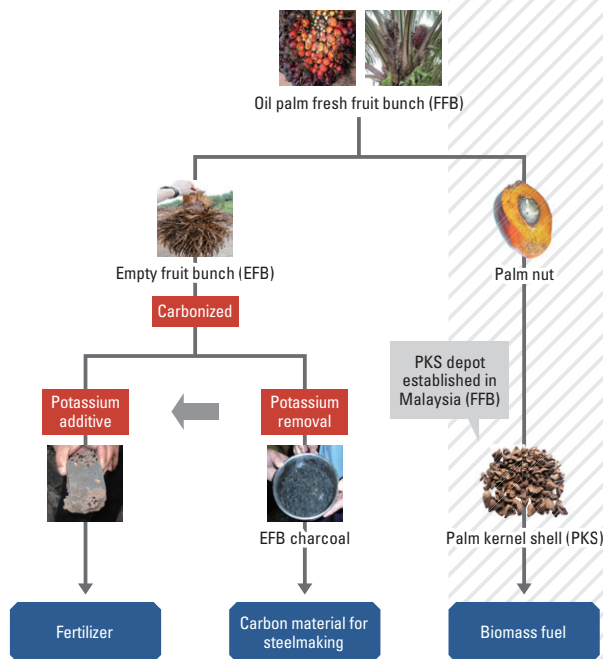
Peeling process

T

● Biomass Fuels

JFE Shoji Trade has been investigating the possibility of using palm kernel shell (PKS), a residual product of palm oil extraction, as biomass fuel. In 2010, it became the first Japanese trading company to establish a cargo yard for PKS and launch a feasibility study in Malaysia. The introduction of a renewable energy feed-in tariff program in Japan in July 2012 has raised demand for biomass fuels for power generation. In October 2013, JFE Shoji Trade established a company in Malaysia to operate the cargo yard and increased the supply of PKS, thereby supporting the spread of renewable energy through biomass power generation. The production of palm oil also generates empty fruit bunches (EFB) at five times the volume of PKS. JFE Shoji Trade is currently conducting verification tests on supplying carbonized EFB as carbon material for steelmaking and proving potassium removed in the manufacturing process as fertilizer.

■ Palm Biomass Project Scheme



Environment-related Communication with Society

Promoting Environment-related Communication

The JFE Group gives utmost priority to communication with all stakeholders, including in matters relating to the environment.

Disclosing Environmental Data of Operational Sites

The East Japan Works of JFE Steel discloses real-time environmental data on air and water quality. Visitors can review this information in the first-floor lobby of the Visitor Center in the Chiba District, and in the Amenity Hall and first-floor lobby of the Keihin Building in the Keihin District.



Disclosure and Exchange of Information

● Ecobeing Environmental Website

JFE cooperates with the "ecobeing" environmental website, which is intended to broaden awareness of eco-activities. In FY2013, the website focused on the theme Nippon—A Leading Environmental Nation, and other topics concerning air, water, soil and space. The theme for FY2014 is Redesigning Tokyo.

Web ecobeing (Japanese only) → www.ecobeing.net

● Participating in Eco-Products 2013 Environmental Exhibition

JFE took part in Eco-Products 2013, one of Japan's largest environmental exhibitions, which was held in December 2013. The company's exhibit was given the theme For the Earth and Our Daily Lives—Making Eco at the JFE Group. JFE's environmental activities were introduced under the categories of "using ecology," "making ecology" and "spreading ecology," and eco-tours designed especially for children were offered by the "making ecology" section.



● Sponsoring "Midori no Komichi" Environmental Diary

The JFE Group sponsors the "Midori no Komichi" (Green Trail) environmental diary project hosted by Green Cross Japan with the hope that children will become more aware of environmental issues by keeping a diary of their activities and thoughts.

● JFE Dragonfly Pathway: Participating in How Far Does a Dragonfly Fly? Forum

The How Far Does a Dragonfly Fly? Forum was launched in 2003 to gather corporations, citizens and local governments in the Keihin coastal area for an effort to create public biotopes and conduct research on the movement and habitats of dragonflies. JFE Engineering joined the effort and created a "Tombo Michi" (dragonfly pathway) on its premises,



which is open to the community.

Children observe dragonflies at an on-site biotope

● Firefly Watching Event in Educational Environmental Zone

The Chita Works contributes to the preservation of biodiversity by maintaining an educational environmental zone on its premises that includes a stream and biotope. As part of this initiative, An Evening with Fireflies event was held in June 2014 to share the preserved ecosystem with local residents. About 120 people enjoyed a romantic evening watching fireflies that had been released in April by elementary schoolchildren. It was the first project focused on maintaining a plant that is clean enough to support fireflies, which require pristine habitats.



JFE Plastic Resource Corporation Receives FY2013 Environmental Communication Award

JFE Plastic Resource Corporation received the Incentive Award in the Environmental Report category of the FY2013 Environmental Communication Awards presented by Japan's Ministry of the Environment. The company was recognized for its scope of data, clear explanations of company activities and the value it places on relationships with local residents and employees.

Contributing to Society's Development

JFE Group CSR REPORT 2014

1

Management

2

Protecting the Environment

3

Contributing to Society's Development

Customers and Clients

JFE Standards of Business Conduct (excerpt)

1. Provide quality products and services

Earn the trust and regard of customers by endeavoring to provide safe, high-quality products and services based on superior technology, and by fully respecting and protecting the privacy of personal and customer information.

JFE Group's Quality Initiatives

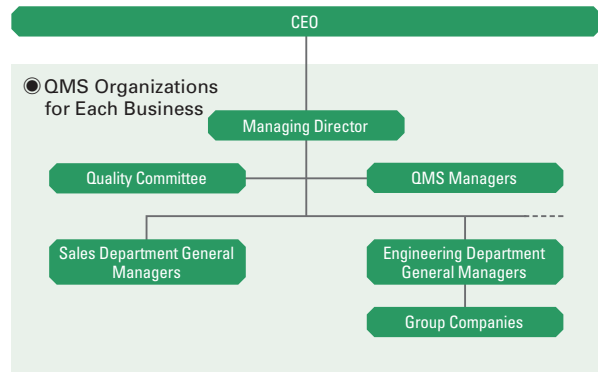
The JFE Group manages quality by ensuring compliance with quality standards set by each operating company. All manufacturing sites that require ISO 9001 certification of their quality management have been duly certified.

Quality Assurance System of Each Operating Company

S JFE Steel has acquired ISO 9001 and all other quality assurance certifications required for steel products, including the JIS mark and approvals from ship classification bodies. In response to globalization needs and customer demand, the company has established a system to receive certification under national standards specific to countries where the company has business. JFE Steel is developing advanced manufacturing technologies to meet customer needs for more sophisticated specifications and higher quality, and it also deploys cutting-edge sensors and testing equipment to provide quality assurance. The company will continue strengthening its quality assurance structures to provide products that all customers can use with confidence, and thereby enhance trust in the JFE brand.

E JFE Engineering has developed a system for quality management, including quality assurance spanning all work processes. Also, FAQ manuals covering product features are provided to customers to help meet their rigorous demands for quality.

Quality Management Organization



T JFE Shoji Trade, which places great emphasis on customer satisfaction, works hard to satisfy the quality requirements of customers and society in general, including through group-wide efforts to share information and best practices regarding quality assurance. JFE Shoji Trade also strives to offer conditions under which customers can transact business confidently with the company. In FY2013, new measures were taken to enhance quality assurance systems at group companies around the world, and a technical exchange meeting was held for group companies involved in steel processing in Japan and abroad.

Responsible Export Practices

S JFE Steel promotes international peace and security by working against the spread of weapons of mass destruction and excess accumulation of conventional weapons. The company carries out inspections to confirm the final destinations, customers and applications of its exported products, and ensures that export procedures are carried out properly. In addition, the company's Legal Affairs Department conducts internal briefings to disseminate knowledge of export-related laws and regulations, such as the Foreign Exchange and Foreign Trade Act. JFE Shoji Trade also ensures compliance in its export activities through education related to export security controls and other measures targeting business units involved in trading.

Improving Customer Satisfaction

S ● Operational System

JFE Steel's development of its J-Smile system in 2006 has enabled the company to create a strong management information infrastructure and operational system to leverage corporate resources and increase customer satisfaction. J-Smile has strengthened the company's response to customer needs in areas such as lead-time, delivery dates, quality assurance and product development. Also, existing systems at steelworks have been upgraded for effective operational control and management.

JFE Steel has also developed an order tracking and inventory system, Smile Port, to provide customers with timely information on inventory and shipping status. The system offers easy Internet access to information, which has led to strengthened relationships with customers.

● Collaboration with Customers on Product Development

JFE Steel has facilities for conducting research and development with customers. These include the Customers' Solutions Lab for auto industry customers and the Steel Structural Materials Solutions Center for customers involved with infrastructure. The facilities are equipped for widely varying research and experimentation, plus conference rooms and space for exhibiting research results. Under this framework, a number of successes have been achieved in helping customers to resolve technological issues through testing and discussion. In August 2010, the Steel Structural Materials Solutions Center's exhibition area for civil engineering steel materials underwent a major renewal for improved customer satisfaction.



Customers' Solutions Lab

● Customer Satisfaction Strategies

JFE Steel regularly conducts customer questionnaires and interviews to draft strategies for greater customer satisfaction. Business strategies are communicated effectively to sales departments, business planning departments, steelworks and research laboratories to facilitate unified customer care.

● Sales Department Initiatives

The Sales Department holds training sessions for sales managers from headquarters, branch offices and foreign offices to discuss how best to work with customers and create better relationships with them. The meetings focus on how to overcome challenges and reach resolutions, including best practices for enhanced customer relationships. The participants are expected to apply such ideas when considering how to strengthen the capabilities of their respective sales offices. Reflecting the accelerating globalization of JFE's operations, Q&A and information-exchange sessions are increasingly being conducted in English.

● Sales Personnel Who Excel in Customer Relations

To enhance customer-response capabilities, the Sales Department of JFE Steel conducts training courses on the fundamentals of steel materials, logistics and accounting for sales personnel. The aim is to foster capabilities related to technical discussions with customers, as well as strengthen feedback in support of product development, proposals for improving logistics and distribution, and analysis of financial indicators and costs. The effort is backed by handbooks on product components and specific end uses of products.

E ● Company Assessments Based on Customer Evaluations

JFE Engineering uses customer surveys, interviews and construction evaluation forms to assess the company's construction management, product quality, advanced technologies and innovation. Each division analyzes this information and uses it for quality improvements, new product development and overall strengthening of after-sales service, ultimately for maximized customer satisfaction.

T ● Customer Data for Better Service

JFE Shoji Trade is expanding its information databases covering customer evaluations, case histories and success/failure stories. Departments use this data to strengthen the presentation and negotiation skills of employees. Information on key issues faced by customers is shared internally to enhance the awareness and understanding of sales personnel regarding how to enhance customer satisfaction.

Fair Competition and Trade

Compliant purchasing and procurement activities are critical to becoming a good business partner and developing understanding and trust with suppliers. Each JFE operating company clearly defines its purchasing and procurement policies, and discloses them to suppliers to encourage them to maintain the same high standards.

S ● Basic Philosophy on Procurement

JFE Steel upholds its Basic Policy on Procurement to conduct purchasing activities with fairness and sincerity, and on the basis of understanding and trust as a good business partner for all suppliers.

Web

Purchasing and Procurement Policies (Japanese only) →
www.jfe-steel.co.jp/company/purchase_policy

● Supplier Support for Responsible Procurements

JFE Steel requests suppliers to cooperate with the company's efforts to prioritize environmental protection, safety, disaster prevention, compliance and other matters that fundamentally impact the business. Ultimately, JFE Steel believes such efforts increase stakeholder satisfaction and lead to strengthened corporate value.

JFE Steel's Requests to Suppliers Regarding CSR Initiatives

1. Develop a system for promoting CSR
2. Comply with laws, regulations and social norms, and information management
3. Observe human rights and occupational health and safety
4. Respect the global environment
5. Provide safe and competitive products and services

E ● Fair and Sincere Procurement

Engineering involves planning, design, procurement and construction with consistent accountability. Procurements are extremely important for the provision of safe, high-quality products and services for customers. JFE Engineering conducts fair and honest procurements by cultivating relationships of trust with suppliers based on the following:

1. Fair opportunities
2. Fair assessment of quality and pricing
3. Legal compliance

T ● Collaborating with Suppliers to Meet Customer Requirements

JFE Shoji Trade carries out responsible procurements throughout its global supply chain. This includes working in concert with suppliers for strengthened procurement initiatives that enable the company to respond to customers' growing demands for responsible procurements. JFE Shoji Trade releases data on the environmental impact of each customer in its supply chain and provides information on substances used in the products it sells.

Shareholders and Investors

JFE Standards of Business Conduct (excerpt)

2. Be transparent to society

Endeavor to communicate with shareholders and society, including by actively disclosing corporate information.

Returns to Shareholders

JFE Holdings makes return on shareholder investment one of its top business priorities. The company strives to ensure a sustainable financial position to allow suitable dividends as well as investments for new growth and the JFE Group's strong financial health. The goal is to maintain a basic payout ratio of around 25%, in addition to making necessary investments in areas such as resource acquisition rights and expansion of operations in Asia.

Proactive Information Disclosure

JFE actively communicates with investors by conducting individual interviews with institutional investors and securities analysts, and by organizing regular visits by management to investors in Japan and overseas, including institutional investors in North America and Europe. For individual investors, briefings are held at the branch offices of securities firms around Japan. The company also distributes videos of investor meetings and e-mails regarding IR information. Important information is provided to overseas investors via English-language press releases. JFE Holdings strives for fair disclosure based on established internal policy.

Web Disclosure Policy (Japanese only) → www.jfe-holdings.co.jp/investor/disclosure-policy.html

Communication with Shareholders

JFE Holdings, viewing its general meetings of shareholders as a chance for dialogue with shareholders, sends invitations at the earliest possible date in an effort to maximize attendance and avoids days on which the shareholder meetings of other companies are concentrated. For shareholders who cannot attend, the company allows online voting in addition to providing the normal proxy form.

Plant tours and briefing sessions are held to improve shareholders' understanding of JFE. In FY2013, workplaces in five districts at JFE Steel, JFE Engineering and Japan Marine United held 28 such events for 2,241 shareholders. In FY2014, these activities will be expanded to include the Chita Works in the hope that even more shareholders will participate.

Major IR Activities in FY2013

Activity	Total Audience
Individual interviews with institutional investors and securities analysts	Approx. 500
Briefings for private investors at securities firms	2,241 in 28 briefings



Plant tour

Web Information for Shareholders and Investors →
Japanese: www.jfe-holdings.co.jp/investor
English: www.jfe-holdings.co.jp/en/investor

Local Communities

JFE Standards of Business Conduct (excerpt)

3. Work cooperatively with communities

Actively contribute to communities as a good corporate citizen by working together in a spirit of cooperation.

JFE 21st Century Foundation

Founded in 1990, the JFE 21st Century Foundation is steadily expanding operations in fulfillment of its mission to promote common good as a nonprofit organization responsible for JFE's philanthropic activities.

Web JFE 21st Century Foundation →
www.jfe-21st-cf.or.jp/eng

● Support for Technology Research

The foundation has supported technology research at universities since FY1991. In FY2013, when the foundation fielded 147 grant requests, a total of 50 million yen was provided in the form of two-million-yen grants provided to each of 13 projects involving iron and steel technologies and 12 projects concerning environmental technologies, including global warming countermeasures.



● Support for Asian History Studies

The foundation began awarding grants in support of Asian history studies at Japanese universities in FY2005. During FY2013, 49 applications were received and 10 grants worth 1.5 million yen each, or 15.0 million yen in total, were awarded.

■ Cumulative Total Number and Value of Grants

Grant Field	Number	Value
Technology Research	480	967.8 million yen
Asian History Studies	70	105 million yen

● Support for Education in Steel-related Communities

Since FY1991, the foundation has been sponsoring JFE 21st Century Foundation prizes for contests in the writing of essays and poems, including tanka and haiku poetry. The contests are conducted by the Japan Overseas Educational Services for Japanese elementary and middle school students attending schools overseas. Copies of Chikyu ni Manabu (Learn from the Earth) Vol. 34, a collection of the winning entries in FY2013, were presented to 467 elementary schools, 214 middle schools, 84 public libraries and 11 education committees.

Events in FY2013 (Location)

- Jo Chihun Cup Go Competition (Chiba)
- Chiba Prefectural Youth Go Competition (Funabashi)
- International Music Day Concert and Chiba Citizens' Music Festival (Chiba)
- MUZA Lunch & Night Concert (Kawasaki)
- Community Festival (Kawasaki)
- How Far Does a Dragonfly Fly? Forum (Kawasaki)
- Handa Community Industrial Festival (Handa)
- Nankichi Niimi Centennial Commemoration (Handa)
- Mie Prefecture High Schools' Robot Tournament (Tsu)
- Kurashiki Music Festival (Kurashiki)
- Kurashiki Shogi Tournament (Kurashiki)
- Fukuyama Rose Festival (Fukuyama)
- The World of Matsuri (Fukuyama)
- Educational support (Ghana)



Overseas writing contest awards ceremony

Kurashiki Music Festival



Local Contribution Activities

● Host Communities

JFE annually opens up its manufacturing facilities to residents in local host communities for demonstrations, tours and other events. In addition, on-site recreational facilities are made available for community sports activities, such as soccer, baseball, volleyball, basketball and other JFE-sponsored events. Coaching sessions are offered by company baseball and track teams, which compete in Japan's top-level corporate leagues. Such activities promote sports and health as well as stronger relationships with host communities.

■ On-site Events in FY2013

Region	Event	Date	Attendance
East Japan Works, Chiba	JFE Chiba Festival	October 27	40,000
East Japan Works, Keihin	Keihin Community Festival	May 26	40,000
West Japan Works, Kurashiki	JFE West Japan Festival in Kurashiki	November 3	80,000
West Japan Works, Fukuyama	JFE West Japan Festival in Fukuyama	May 11	70,000
Chita Works	Handa Community Industrial Festival	November 9	21,000
Tsu Works	Tsu Autumn Festival	October 15	4,000



Keihin Community Festival



JFE West Japan Festival in Kurashiki



JFE West Japan Festival in Fukuyama

S ● Education at Elementary Schools

The East Japan Works of JFE Steel conducts plant tours and classes for students at nearby elementary schools. Company employees also visit schools to explain steelmaking processes, steelworks features, environmental initiatives and other topics that deepen understanding of the steel industry. In the current fiscal year, the plants are reaching out to more elementary schools and developing programs matched to specific interests.



Course at Miyazaki Elementary School (Chiba City)

S ● Manufacturing Classroom

The Chita Works of JFE Steel organizes classes on making accessories out of cast parts, which it couples with plant tours that let local children experience the fascination and excitement of manufacturing. The activity, launched in FY2013 in collaboration with the local board of education, has expanded to include classes at local elementary schools and community centers. About 6,600 residents have participated to date. From FY2014, classes have also been organized during summer vacation. The program has been further augmented with presentations on the history of steel and the industry's place in the world.



Experiencing the fascination of manufacturing

Support for External Organizations

● UN World Food Programme

The Japan Association for the UN World Food Programme is an NPO-accredited supporter of the UN World Food Programme (WFP), the United Nations organization that works to eliminate hunger and poverty. The association conducts activities to expand the circle of WFP support in Japan, including through the collection of donations. JFE supports these activities.

● Training Foreign Medical Professionals

Toranomon Hospital in Tokyo, with assistance from private corporations including JFE, manages the Japanese Council for Medical Training to provide training opportunities for foreign doctors. The program invites doctors from developing countries, primarily in Asia, to study in Japan and then return home to promote enhanced medical standards. It also aims to foster stronger relationships between Japan and these countries.

● Japanese Foundation for Cancer Research

Since its establishment in 1908, the Japanese Foundation for Cancer Research has upheld its basic philosophy of contributing to the improvement of human welfare by overcoming cancer. It has played a leading role in research and treatment, as well as human resource development in Japan. JFE provides the foundation with support.

Support for Youth Development

● Japanese Language Speech Contest

The All-China Japanese Speech Contest for students in China has been held since 2006 with the aim of developing and maintaining Japan-China relations through language and communication. JFE supports the contest as a way to promote stronger international exchange.



S ● High School Essay Contest

The Japan Science & Engineering Challenge (JSEC) is a national science-paper contest for high school and technical college students that began in 2003 under the sponsorship of the *Asahi Shimbun* newspaper. JFE Steel, which began providing support in 2006 to help nurture future scientists and engineers, continues to work with the JSEC to raise the standards of science and technology in Japan.



JFE Steel Award recipient Ms. Chinami Motomatsu, a high school student

S E ● FY2013 Internship Achievements

JFE hosted 130 students from around Japan as interns in FY2013. JFE Engineering also received 33 students, including interns from overseas, to help them gain practical experience at company workplaces such as design and construction sites.

T ● Supporting Elementary Schools in Ghana and Nigeria

Since FY2011, JFE Shoji Trade and its subsidiary Kawasho Foods Corporation have supported elementary schools in the West African countries of Ghana and Nigeria. In FY2013, 800 sets of desks and chairs, 24,000 notebooks and 23,000 cans of food were donated. Going forward, JFE will continue to support educational development in these nations.



Employees

JFE Standards of Business Conduct (excerpt)

8. Respect human rights

Respect all employees and members of the general public as individuals and refrain from any discrimination in corporate activities.

Respecting Human Rights

JFE, viewing respect for human rights as both a corporate social responsibility and a foundation of its business, works to raise awareness of human rights among all employees. Specific examples include appointment of employees to oversee human rights education at each JFE company, implementation of human rights training courses, guaranteed employment opportunities and promotion of fair human resource management.

Sexual and other harassment is prevented through measures including company regulations, training, workplace posters and hotlines staffed by men and women at each business location. Training and other measures also are implemented to prevent power harassment. During the annual Human Rights Week, leaflets with messages from senior management are distributed and employees are encouraged to submit slogans.



Poster promoting hotlines

JFE Standards of Business Conduct (excerpt)

9. Provide rewarding work environments

Provide employees with attractive, safe and rewarding work environments.

Development of Human Resources

In response to the massive generational change due to baby boomer retirements, JFE is placing a strong emphasis on securing outstanding personnel and enhancing human resource development Group-wide.

S As JFE Steel expands its exports and other overseas business, it has been investing increasingly in the development of globally capable human resources. To foster professionals who are well suited to various fields of specialty, the company provides training for each position and job, including on-site education, and also is supporting international language training and increased opportunities for younger employees to go abroad. In FY2013, about 40 employees took part in language and overseas training. Since FY2014, three-month overseas training programs have been introduced for all new recruits in administrative positions.

E JFE Engineering, in addition to personnel training, has adopted an internal recruiting system for employees who are especially interested in particular positions, allowing them to challenge themselves and make the most of their capabilities.

T JFE Shoji Trade regards human resource development as a critical measure for strengthening organizational capabilities. After adopting a set of principles for this purpose in 2011, every year the company creates a planning sheet for each employee to clearly define their overall goals and individual training points.

Workforce Diversity

JFE, as part of its emphasis on workforce diversity, has developed strategies to maximize the individual potential of employees coming from varied lifestyles and family backgrounds.

S JFE Steel is recruiting more women and foreign nationals to promote diversity. Female employees are being offered career-track positions and on-site positions at steelworks, often to pursue careers alongside male colleagues. The Diversity Promotion Section facilitates career development for female and foreign employees by holding training sessions for their supervisors and senior employees, and by promoting communication among female employees through organized meetings. Also, necessary facilities are being provided at steelworks, such as separate shower rooms and lavatories for females. To further cultivate a sense of workforce unity that transcends borders and cultural backgrounds, additional measures include training for Indian employees from JSW Steel at the Sales Department of JFE Steel's head office and training at the Tokyo head office for international personnel hired locally.

E JFE Engineering is bolstering its recruiting drive to keep pace with the company's expanding business. The company is actively hiring individuals with diverse attributes and values, such as personnel from other business sectors and foreign nationals. To promote female employees, the personnel system was revised in 2013 to abolish employee rankings based on operational tasks to better assist the development of women's careers.

T JFE Shoji Trade is diversifying its workforce by hiring more women for career-track positions and foreign nationals and individuals with experience in other business sectors. To help career-track women fully demonstrate their abilities, the company is introducing a system to enable them to convert from clerical to career-track positions. Also, clerical job categories are being expanded and training programs are being enhanced for women in these positions. Furthermore, training in Japan is being enhanced for employees hired overseas to promote global human resource development.

Employee Data*

Category	JFE Steel	JFE Engineering	JFE Shoji Trade
Employees*	13,770	3,074	927
Male	12,845	2,716	601
Female	925	358	326
Management positions*	2,457	1,691	352
Male	2,426	1,664	338
Female	31	27	14
Ratio of women in management positions (%)	1.3%	1.6%	4.0%
Recruits*	444	174	62
Male	402	153	41
Female	42	21	21
New graduates	368	77	52
Mid-career	76	97	10
Years employed	20.1	17.5	11.8
Male	20.0	18.3	11.9
Female	21.8	14.5	11.4
Job turnover rate (%)	1.0	0.8	2.4
Rehired employees*	1,319	300	21
Average annual leave taken (days per year)	15.5	14.0	9.6
Average overtime (hours per month)	25.4	24.5	29.9
Employees working shorter hours for childcare* (aggregated)	143	32	22

* Data as of April 1, 2014. Other figures are as of FY2013.

Employment of Persons with Disabilities

JFE employs persons with disabilities and provides them with suitable working environments by operating three special subsidiaries: JFE Apple East Corporation, JFE Apple West Corporation and Mie Data Craft Co., Ltd. A renewed effort is underway to hire more persons with disabilities at JFE Engineering, where the ratio of employees with disabilities has temporarily fallen due to an increase in its total workforce.

Employment of Persons with Disabilities (as of June each year)

	FY2011	FY2012	FY2013	FY2014
JFE Steel	1.95	2.02	2.06	2.16
JFE Engineering	1.86	1.88	1.90	1.84
JFE Shoji Trade	1.69	1.86	1.90	2.30

(%)

● **Passing on Skills and Reemploying Retirees**

S Considering that all steelworks need to preserve the valuable know-how of their veteran employees, JFE Steel created a Senior Expert Program to rehire employees who wish to continue working after mandatory retirement at age 60. The company also introduced its Technical Expert Program in FY2013 to ensure that the skills of veterans are handed down to younger employees. About 100 experts are currently working as specialized instructors to pass on their skills.

E JFE Engineering a reemployment system to transfer the skills and project experience of veteran employees to younger generations. The company also established a wholly owned subsidiary, JFE Career Navi, to facilitate the continued careers of retirees.

T To promote work sharing at JFE Shoji Trade, a reemployment system was introduced to enable retired employees to be rehired and work until the age of 65. In consideration of work-life balance, employees may choose from a variety of working arrangements, including full-time, shortened work weeks or shortened working hours.

Work-life Balance

JFE, in addition to complying with regulations such as the Child Care and Family Care Leave Act and the Act for Measures to Support the Development of the Next Generation, significantly exceeds statutory requirements with enhanced holiday and leave programs. To address any possible concerns about long working hours, JFE monitors overtime work and implements necessary adjustments through its CSR Council and other organizational entities.

S JFE Steel carefully explains the needs and purposes of work-life balance through internal publications produced separately for managers and other employees. Management and labor jointly review progress in promoting work-life balance, such as the number of holidays and leaves taken by employees. To raise operational efficiency with the aim of reducing extended working hours, the company evaluates organizational systems such as meetings and decision-making authority.

E JFE Engineering sets overtime targets for all employees to prevent extended working hours from becoming common practice. Also, the company encourages employees to take at least 15 days of paid leave each year.

T JFE Shoji Trade conducts training and other activities by position level to inform employees about company programs for work-life balance. To reduce extended working hours, the company is raising awareness of the need for operational efficiency through measures such as designating Wednesday as a day to leave work at the official close time and conducting the J-SLIM program to implement operational reforms.

■ **Applicants for Childcare and Nursing Leave** (persons)

Category	Company	FY2011	FY2012	FY2013
Childcare leave	JFE Steel	37 (2)	20 (1)	23 (1)
	JFE Engineering	25 (1)	27 (1)	21 (0)
	JFE Shoji Trade	16 (0)	26 (0)	32 (0)
Nursing leave	JFE Steel	4 (3)	5 (2)	5 (1)
	JFE Engineering	2 (2)	5 (5)	2 (2)
	JFE Shoji Trade	0 (0)	1 (0)	0 (0)

Note: Figures in parentheses are males.

■ **Examples of JFE Programs for Work-life Balance**

Category	Statutory Requirement	Company	Details	
Childcare	Period	S	Up to 3 years old	
		E	Up to 2.5 years old	
		T	Up to 2 years old	
	Shortened working hours	Until child is 3 years old	S E	2 hours per day until child finishes elementary school
			T	2 hours per day until child finishes third grade of elementary school
	Childcare subsidies	Not stipulated	S	Partial subsidy for non-registered nursery schools and daycare facilities for sick children
E			Company-operated childcare facility offering reduced fees	
T			Partial childcare subsidy for employees returning from childcare leave	
Special leave when spouse gives birth	Not stipulated	S E	5 days of paid leave	
		T	2 days of paid leave	
Nursing Care	Nursing leave period	S E	Maximum total of 2.5 years	
		T	Maximum total of 1 year	
Shortened working hours	Maximum 93 days per person	S E	Maximum total of 2.5 years	
		T	Maximum total of 1 year	
Career Support	Not stipulated	S	Reemployment of those who left for childbirth, childcare, nursing care or spousal relocation	

S: JFE Steel **E**: JFE Engineering **T**: JFE Shoji Trade

Employee Health and Safety

Providing for the safety and health of employees is a basic requirement of companies, particularly manufacturers, and is fundamental to the continued existence of any company. JFE, which adheres to the philosophy of "safety first," works to consistently maintain safe working environments and secure workplaces for all employees.

■ Lost Work-time Injuries and Severity (rates)

		FY2009	FY2010	FY2011	FY2012	FY2013
JFE Steel	Lost-work time injuries	0.22	0.21	0.27	0.23	0.06
	Severity	0.24	0.02	0.19	0.48	0.01
JFE Engineering	Lost-work time injuries	0.43	0.87	0.47	0.17	0.73
	Severity	0.55	0.48	0.89	0.01	0.03
JFE Shoji Trade Group	Lost-work time injuries	1.30	1.04	0.39	0.52	0.26
	Severity	0.14	0.07	0.02	0.01	0.08
Manufacturing industry average	Lost-work time injuries	0.99	0.98	1.05	1.00	0.94
	Severity	0.08	0.09	0.08	0.10	0.10

JFE Steel and JFE Engineering: parent company, business associates and contractors; JFE Shoji Trade: parent and domestic group companies, business associates and contractors

S JFE Steel, based on its fundamental belief in the "safety first" philosophy, as declared by the company president himself, has three basic strategies to maintain and enhance its safety measures: promote the autonomous resolution of issues in districts and workplaces, strengthen health and safety at business associates and group companies, and promote mental and physical health. The company is raising employee awareness of enhanced safety through strengthened health and safety education, including via an educational DVD augmented with helpful graphics, action policy posters featuring professional photography and refurbished simulators for practicing emergency drills.

E JFE Engineering strives to eliminate accidents at its approximately 2,000 construction and operating sites nationwide and two manufacturing plants by conducting detailed risk assessments for each operation, aiming to identify potential dangers and develop safety measures. A special focus has been placed on preventing employees from falling or tumbling at the Tsurumi and Tsu works, or becoming wedged or ensnared in equipment. Efforts to enhance working environments and occupational health standards also are helping to ensure the health of employees. In addition, the company promotes activities to maintain physical and mental health.

T All JFE Shoji Trade employees participate in health and safety activities aimed at eliminating potential dangers under the slogan "creating an accident-free workplace through resolve." For heightened effectiveness, safety patrols are conducted twice a year at group companies in Japan and once a year at overseas affiliates. JFE Shoji Trade also organizes working groups on safety and seminars on facilities for domestic group companies, and meetings where group companies overseas can share such information.

Disaster Prevention

S JFE Steel conducts annual drills for large-scale earthquakes or tsunamis. Based on the results of these drills, disaster preparedness is being strengthened with increased options for emergency communication, supported by backup systems, to help maintain command and control of critical facilities and functions. Plans are reviewed in line with studies conducted by each local government.

E All employees at JFE Engineering are issued an Earthquake Disaster Manual that draws on lessons learned from the Great East Japan Earthquake to specify what people should do during a major disaster.

T JFE Shoji Trade, applying experiences from the Great East Japan Earthquake, has created manuals on initial responses and procedures for workplace managers, developed emergency communication methods, provisioned emergency food supplies and established a system for confirming the safety of employees and their families. The company also conducts annual disaster drills.

Health Management

JFE initiatives to maintain and enhance the health of its employees are supported by occupational health and safety staff members to ensure that all employees perform at top capacity by maintaining healthy minds and bodies.

● Key Initiatives

- Thorough implementation of preventive measures for work-related illness
- Regular physical examinations
- Physical examination follow-up (counseling and adjustments in assignments, as required)
- Treatment and follow-up by partner hospitals and their networks
- Enhanced mental healthcare (counseling services, education for managers, care for those in need, etc.)

S ● JFE Steel Initiatives (besides above)

- Meetings with physicians specializing in worker health to consider health-management measures
- Hosting conferences where worker-health physicians present case studies
- Operation of health management systems
- Utilization of occupational health management system
- Specialized healthcare advice
- Preventive measures against new strains of influenza
- Measures regarding passive smoking

E ● JFE Engineering Initiatives (besides above)

- Events to raise awareness of health issues
- Stress tests for all employees
- Guidance from worker-health nurses and physicians who visit branch offices and worksites
- Measures for specific health guidance
- Preventive measures against new strains of influenza

T ● JFE Shoji Trade Initiatives (besides above)

- Preventive measures against new strains of influenza
- Weekly reporting and consultation between worker-health physicians and health staff members
- Monthly Health Committee meetings

Development of Dynamic Work Environments

● Sound Labor-management Relations

S JFE Steel convenes its Labor-Management Business Discussion Committee four times a year to bring the company's president and other executives together with labor representatives.

E JFE Engineering, along with its Central Labor-Management Committees, creates additional opportunities for group-company presidents and executives to share opinions with labor representatives.

T JFE Shoji Trade management and labor regularly exchange opinions and share information. During a Management Committee convened twice a year, the company's president and other executives exchange views with labor representatives.

● Invigorating Workplaces through Small Group Activities

S Throughout JFE Steel, approximately 1,500 small groups carry out J1 Activities* for quality and work improvement. In addition, the JFE Family Result Reporting Conference, which includes participation from domestic and overseas group companies, is organized twice a year, and groups selected through competition are given opportunities to go overseas as an incentive.

* Activities for turning JFE into an excellent company and propelling it into the No. 1 position in the industry, called J1 Activities at JFE Steel and JE1 Activities at JFE Engineering.

E At JFE Engineering, about 150 teams involving more than 1,200 employees participate in JE1 Activities every year. Continuous efforts are being made to take on the challenge of becoming the No. 1 engineering company based on the results of these activities. Examples include incremental improvements in daily workplaces to an idea for a new construction method that has significantly cut costs.

T Since October 2008, JFE Shoji Trade has pursued its J-SLIM operational reform program, which includes system examinations and measures to improve management, work environments and line work. In 2013, 21 teams, including JFE Shoji Trade, seven domestic companies and three overseas companies, presented their activities during the fifth J-SLIM presentation at the company's Tokyo head office.

Awards and Accolades

External Awards

The JFE Group develops innovative technologies and products to meet the needs of society, and the results of its activities have been widely recognized in Japan and overseas.

	Prizes/Awards	Projects	Sponsors
JFE Steel	40th Naoji Iwatani Memorial Prize	Contribution to the global environment through the development of technology to pulverize used plastic for reuse as a reducing agent in blast furnaces	Iwatani Naoji Foundation
	11th New Machinery Promotion Award – JSPMI Chairman’s Award	Online inspection system for weld quality of electric-resistance welded pipes with high fracture toughness	Japan Society for the Promotion of Machine Industry (JSPMI)
	60th Okochi Memorial Technology Prize	Development of steel for pipelines with superior buckling resistance	Okochi Memorial Foundation
	5th Monodzukuri Nippon Grand Award – Minister of Economy, Trade and Industry’s Prize	Contribution to increasing the safety and economy of high-rise buildings through the development of high tensile-strength steel for ultrahigh-heat input welding	Ministry of Economy, Trade and Industry
	FY2013 Minister of Education, Culture, Sports, Science and Technology Award Commendation for Science and Technology, Development category	Spray transfer carbonic acid gas arc welding technologies for superior construction	Ministry of Education, Culture, Sports, Science and Technology
	45th Annual Ichimura Industrial Awards – Contribution Prize	Steel tube braces with superior designing for seismic resistance and safety in buildings	The New Technology Development Foundation
	2013 R&D 100 Awards	HIPER® earthquake-resistant line pipe	R&D Magazine (U.S.)
JFE Engineering	Japan Society for Engineering Managers for Waste Disposal Facilities FY2013 Annual Dissertation Award	“The Fundamentals of Plant Components,” <i>Environmental Technology Journal</i> , Vol. 150	Japan Society for Engineering Managers for Waste Disposal Facilities
	Japan Bridge Association FY2013 Incentive Award	Erection design, etc., for the Singapore Sky Park	Japan Bridge Association
	Low CO ₂ KAWASAKI Brand ‘13	RAPIDAS super-rapid charger for electric vehicles	Kawasaki, Kanagawa Prefecture
	FY2013 Cogeneration Grand Prize for the Consumer Category – Award for Excellence	Cogeneration system upgrade for Iwasaki Computer Center Building	Advanced Cogeneration and Energy Utilization Center Japan
	Engineering Advancement Association of Japan FY2013 Distinguished Service Award	Mongolia’s Sun Bridge Construction Project Team	Engineering Advancement Association of Japan



Naoji Iwatani Memorial Award



Monodzukuri Nippon Grand Award

Internal Awards

	Prizes/Awards	Projects	Award-winning Departments
JFE Steel	JFE Steel President’s Award — Grand Prize	Establishment of innovative hot-metal preparative treatment process for converters	East Japan Works (Keihin District) Steelmaking Department, and others
	JFE Steel President’s Award — Grand Prize	Expanded use of Keihin material for production of seamless steel materials	Chita Works Manufacturing Department, and others
	New Product Development Award — Gold Prize	Extra-stretch HITEN® GA series	Steel Research Laboratory, Forming Technology Research Department, and others
JFE Engineering	Award for Best Invention — Grand Prize	New type of stoker incinerator	Technology Division, Research Center of Engineering Innovation and Urban Environment Division, and Environmental Plant Department
	Award for Best Invention — Grand Prize	Enhanced durability and decorative construction method for wall balustrades of Metropolitan Expressway	Steel Structure Engineering Division, and Bridge Department

GRI Content Index

This report contains Standard Disclosures from the GRI G4 Sustainability Reporting Guidelines.

General Standard Disclosures		Report Pages	Environmental Data Book Pages
Strategy and Analysis			
G4-1	Statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	3-4	—
G4-2	Description of key impacts, risks, and opportunities.	3-4, 28	—
Organizational Profile			
G4-3	Name of the organization.	5-6	—
G4-4	Primary brands, products, and services.	5-6, 7-12	—
G4-5	Location of the organization's headquarters.	5-6	—
G4-6	Number of countries where the organization operates, and the names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	5-6	1
G4-7	Nature of ownership and legal form.	5-6	—
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	5-6	—
G4-9	Scale of reporting organization: <ul style="list-style-type: none"> Total number of employees Total number of operations Net sales (for private sector organizations) or net revenues (for public sector organizations) Total capitalization broken down in terms of debt and equity (for private sector organizations) Quantity of products or services provided 	5-6, 55	—
G4-10	a. Total number of employees by employment contract and gender. b. Total number of permanent employees by employment type and gender. c. Total workforce by employees and supervised workers and by gender. d. Total workforce by region and gender. e. Whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f. Significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries).	55-56	—
G4-11	Percentage of total employees covered by collective bargaining agreements.	58	—
G4-12	A description of organization's supply chain	5-6, 7-12	—
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain: <ul style="list-style-type: none"> Changes in location or operations, including facility openings, closings, and expansions Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination 	Not applicable	—
G4-14	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	22	—
G4-16	Memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: <ul style="list-style-type: none"> Holds a position on the governance body Participates in projects or committees Provides substantive funding beyond routine membership dues Views membership as strategic 	35-36	—
Identified Material Aspects and Boundaries			
G4-17	Operational structure of the organization. <ul style="list-style-type: none"> All entities included in the organization's consolidated financial statements or equivalent documents. Any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report. 	1	1
G4-18	a. Process for defining the report content and the Aspect Boundaries. b. How the organization has implemented the Reporting Principles for Defining Report Content.	1	1
G4-22	Explanation of the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	34	13
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries.	1	1
Report Profile			
G4-28	Reporting period (such as fiscal or calendar year) for the information provided.	1	1
G4-29	Date of the most recent previous report (if any).	1	1
G4-30	Reporting cycle (such as annual, biennial).	1	1
G4-31	Contact point for questions regarding the report or its contents.	Back cover	—
G4-32	a. "In accordance" option has been chosen by the organization. b. GRI Content Index for the chosen option (see tables below). c. Reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance, but it is not a requirement to be "in accordance" with the Guidelines.	60-62	—
Governance			
G4-34	Governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision making on economic, environmental and social impacts.	17-18	—
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	23	—
G4-36	Details on whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	23	—

General Standard Disclosures		Report Pages	Environmental Data Book Pages
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics.	23	—
G4-38	Composition of the highest governance body and its committees by: <ul style="list-style-type: none"> • Executive or non-executive • Independence • Tenure on the governance body • Number of each individual's other significant positions and commitments, and the nature of the commitments • Gender • Member of under-represented social groups • Competences relating to economic, environmental and social impacts • Stakeholder representation 	Governance Report, Security Report	—
G4-39	Details on whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	Security Report	—
G4-40	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members. <ul style="list-style-type: none"> • Whether and how diversity is considered • Whether and how independence is considered • Whether and how expertise and experience relating to economic, environmental and social topics are considered • Whether and how stakeholders (including shareholders) are involved 	Governance Report, Security Report	—
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed. <ul style="list-style-type: none"> • Cross-board membership • Cross-shareholding with suppliers and other stakeholders • Existence of controlling shareholder • Related party disclosures 	17–19	—
G4-42	Highest governance body's and senior executives' roles in the development, approval, and updates of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	23	—
G4-44	a. Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, and whether such evaluation is independent or not, and its frequency, as well as whether such evaluation is a self-assessment. b. Actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.	23	—
G4-46	Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	18–23	—
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks and opportunities.	19–23	—
G4-49	Process for communicating critical concerns to the highest governance body.	17–19, 21	—
G4-51	a. Remuneration policies for the highest governance body and senior executives for the below types of remuneration: <ul style="list-style-type: none"> • Fixed pay and variable pay: <ul style="list-style-type: none"> – Performance-based pay – Equity-based pay – Bonuses – Deferred or vested shares • Sign-on bonuses or recruitment incentive payments • Termination payments • Clawbacks • Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees b. Performance criteria in the remuneration policy related to the highest governance body's and senior executives' economic, environmental and social objectives.	Governance Report, Security Report	—
G4-52	Process for determining remuneration, and whether remuneration consultants are involved in determining remuneration, as well as whether they are independent of management. Any other relationships which the remuneration consultants have with the organization.	Governance Report, Security Report	—
Ethics and Integrity			
G4-56	Description of the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	2	—
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms and hotlines.	21, 54	—

Specific Standard Disclosures		Report Pages	Environmental Data Book Pages
Disclosures on Management Approach			
G4-DMA	a. Why the Aspect is material. Report the impacts that make this Aspect material. b. How the organization manages the material Aspect or its impacts. c. Evaluation of the management approach, including: <ul style="list-style-type: none"> • The mechanisms for evaluating the effectiveness of the management approach • The results of the evaluation of the management approach • Any related adjustments to the management approach 	23, 25–30, 47	3
Economic			
Economic Performance			
G4-EC1	Direct economic value generated and distributed.	Security Report	—
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	28	—
G4-EC3	Coverage of the organization's defined benefit plan obligations.	Security Report	—
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G4-EC7	Development and impact of infrastructure investments and services supported.	51–53	—
G4-EC8	Significant indirect economic impacts, including the extent of impacts.	51	—
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G4-EN1	Materials use by weight or volume.	31–32	9–11, 20, 25
G4-EN2	Percentage of materials used that are recycled input materials.	31–32, 40–41	—

Specific Standard Disclosures		Report Pages	Environmental Data Book Pages
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G4-EN4	Energy consumption outside of the organization.	31–32, 34	9–10, 13
G4-EN5	Energy intensity ratio for the organization.	7, 33–34	13
G4-EN6	Reduction of energy consumption.	7–12, 33–37	—
G4-EN7	Reductions in energy requirements of products and services.	7–12	—
Water			
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G4-EN10	Percentage and total volume of water recycled and reused.	31–32, 38	9–10, 12
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G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3).	31–32, 34	9–10, 13
G4-EN18	Greenhouse gas (GHG) emissions intensity.	33–34	13
G4-EN19	Reduction of greenhouse gas (GHG) emissions.	7–12, 33–37	—
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G4-EN24	Total number and volume of significant spills.	Not applicable	—
Products and Services			
G4-EN27	Extent of impact mitigation of environmental impacts of products and services.	7–12, 40, 42–44	5–6
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category.	31–32, 40–41	5
Compliance			
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Not applicable	—
Transport			
G4-EN30	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	31–32, 34	9–10, 13
Overall			
G4-EN31	Total environmental protection expenditures and investments by type.	27	4
Social			
Labor Practices and Decent Work			
Employment			
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender, and region.	55	—
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operations.	56–58	—
G4-LA3	Return to work and retention rates after parental leave, by gender.	56	—
Occupational Health and Safety			
G4-LA5	Percentage of total workforce represented in formal joint management worker health and safety committees that help monitor and advise on occupational health and safety programs.	58	—
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, absenteeism, and total number of work-related fatalities by region and gender.	57	—
G4-LA8	Health and safety topics covered in formal agreements with trade unions.	57	—
Training and Education			
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	54	—
Diversity and Equal Opportunity			
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	55–56	—
Human Rights			
Investment			
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	54	—
Society			
Local Communities			
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	51–53	—
G4-SO2	Operations with significant actual and potential negative impacts on local communities.	Not applicable	—
Anti-Corruption			
G4-SO4	Communication and training on anti-corruption policies and procedures.	20	—
Product Responsibility			
Customer Health and Safety			
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement.	47	—
Product and Service Labeling			
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	Not applicable	—
G4-PR5	Results of surveys measuring customer satisfaction.	48	—
Marketing Communications			
G4-PR6	Sale of banned or disputed products.	Not applicable	—

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

Report Parameters and Summary							
Item	Pages	Content	CSR Report			Environmental Data Book Pages	
			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	○	○	○	—	
	60-62	GRI Content Index	○	○	○	—	
(4) Policies for selecting a type of report	1	Editorial Policy	○	○	○	—	
	Back cover	Contact information	○	○	○	—	
	3-4	Message from the CEO	○	○	○	—	
2. Chairman's statement/CEO's statement							
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	29-30	Main Environmental Targets and Results	○	○	○	7-8	
4. Material Balance							
	31-32	Materials Flow	○	○	○	9-10	
Information and Indicators on How Environmentally Focused Management Including Environmental Management is Working							
Item	Pages	Content	CSR Report			Environmental Data Book Pages	
			JFE Steel	JFE Engineering	JFE Shoji Trade		
1. Environmental Policies, Visions and Business Strategies							
(1) Environmental policies	2	Standards of Business Conduct	○	○	○	—	
	25	Environmental Philosophy and Policy	○	○	○	—	
(2) Material issues, visions and business strategies	3-4	Message from the CEO	○	○	○	—	
	28	Environmental Risks and Opportunities	○	○	○	—	
2. Organizational Systems and Governance							
(1) Organizational systems for environmentally focused management	25-26	Environmental Management	○	○	○	3	
	64	Third Party Comments	○	○	○	—	
(2) Environmental risk management system	25-26	Environmental Management	○	○	○	—	
(3) Compliance with environmental regulations	26	Environmental Auditing	○	○	○	—	
	38-39	Protecting the Environment	○	○	○	—	
3. Responsiveness of Stakeholder Issues							
(1) Responsiveness to stakeholder issues	25	Environmental Philosophy and Strategies	○	○	○	—	
	28	Environmental Risks and Opportunities	○	○	○	—	
(2) Philanthropy related to the environment	38-36	Initiatives by the Japanese Steel Industry	○	○	○	—	
	45	Environment-related Communication with Society	○	○	○	—	
4. Environmental Initiatives in the Value Chain							
(1) Strategies and environmental policies in the value chain	28	Value Chain Initiatives	○	○	○	—	
	28	Environmental Risks and Opportunities	○	○	○	—	
	34	CO ₂ Reduction in Value Chain	○	○	○	13	
(2) Green purchasing and procurement	28	Value Chain Initiatives	○	○	○	—	
(3) Products and services designed for mitigating environmental impacts	10-12	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	34	CO ₂ Reduction in Value Chain	○	○	○	13	
	40-41	Resource Recycling	○	○	○	5-6	
	42-44	Eco-Friendly Products and Technologies	○	○	○	—	
(4) New environmental technologies and research and development	7-12	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	27	Environmental Accounting	○	○	○	4	
	35-36	Initiatives by the Japanese Steel Industry	○	○	○	—	
	42-44	Eco-Friendly Products and Technologies	○	○	○	—	
(5) Environmentally sound transportation	9	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	34	CO ₂ Reduction in the Value Chain	○	○	○	13	
(6) Resource exploitations and real estate development/investment with less environmental impacts	—	—	—	—	—	—	
(7) Waste management and recycling	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	41	Resource Recycling	○	○	○	12, 14, 23-24	
Information and Indicators on Environmental Impacts of Business Activities and Environmental Initiatives Undertaken to Mitigate Them							
Item	Pages	Content	CSR Report			Environmental Data Book Pages	
			JFE Steel	JFE Engineering	JFE Shoji Trade		
1. Resources Used and Energy Consumption							
(1) Total energy consumption and initiatives to reduce it	7-9	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	31-32	Materials Flow	○	○	○	9-10, 20	
	33-34	Energy Savings and CO ₂ Reduction in Steelmaking	○	○	○	11-13	
	37	CO ₂ Emissions	○	○	○	25	
(2) Total materials used and initiatives to reduce them	7-8	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	31-32	Materials Flow	○	○	○	9-10, 11, 20	
(3) Water withdrawal and initiatives to reduce it	31-32	Materials Flow	○	○	○	9-10, 11, 20	
	38	Cyclic Use of Water	○	○	○	12	
(2) Recycled input resources (within the organizational boundary)	7-8	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	31-32	Materials Flow	○	○	○	9-12	
	38	Cyclic Use of Water	○	○	○	12	
	41	Resource Recycling	○	○	○	5-6	
3. Products and Services and Environmental Impacts Arising from Production							
(1) Total products manufactured or goods sold	31-32	Materials Flow	○	○	○	9-10, 11, 20	
(2) Greenhouse gas emissions and initiatives to reduce them	7-9	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	31-32	Materials Flow	○	○	○	9-10	
	33-37	Global Warming Prevention	○	○	○	4, 12-13, 21, 25	
(3) Total water discharge and initiatives to reduce it	31-32	Materials Flow	○	○	○	7-8	
	38-39	Efficient Use of Water and Prevention of Contamination	○	○	○	11-12, 14, 22	
(4) Effluents and nuisance, and initiatives to reduce them	7	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	31-32	Materials Flow	○	○	○	7-8	
	38	Controlling Air Emissions	○	○	○	14	
(5) Release and transfer of chemical substances and initiatives to reduce them	31-32	Materials Flow	○	○	○	7-8	
	39	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	8, 11-12	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	29-30	Main Environmental Targets and Results	○	○	○	7-8	
	31-32	Materials Flow	○	○	○	9-10, 11-12, 14	
	40-41	Resource Recycling	○	○	○	5-6, 23-24	
(7) Significant spills of hazardous substances and measures taken for preventing them	39	Management of Chemical Substances	○	○	○	—	
4. Conservation of Biological Diversity and the Sustainable Use of its Components							
	12	Reducing Environmental Loads with the World's Most Innovative Technology	○	○	○	—	
	42	Eco-Friendly Products and Technologies	○	○	○	—	
	45	Disclosure and Exchange of Information	○	○	○	—	
Information and Indicators on the Economic and Social Contexts of Environmentally Focused Management							
Item	Pages	Content	CSR Report			Environmental Data Book Pages	
			JFE Steel	JFE Engineering	JFE Shoji Trade		
1. Economic Contexts of Environmentally Focused Management							
(1) Economic contexts in an enterprise	27	Environmental Accounting	○	○	○	4	
(2) Economic contexts in society	28	Environmental Risks and Opportunities	○	○	○	—	
	28	Environmental Risks and Opportunities	○	○	○	—	
2. Social contexts of environmentally focused management	13-16	Harnessing Human Diversity as an Organizational Strength	○	○	○	—	
	17-23	Management	○	○	○	—	
	46-58	Contributing to Society's Development	○	○	○	—	
Miscellaneous Contents to Be Disclosed							
Item	Pages	Content	CSR Report			Environmental Data Book Pages	
			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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1. Significant Improvements in Composition and Content

The report for this fiscal year contains significant improvements in the composition and content of disclosure, resulting in a CSR report with higher overall quality.

The most significant improvement was a change in the composition, from activity-based reports by operating company to a theme-based presentation, making it very clear that this is the CSR report of a holding company. The JFE Group comprises three operating companies with different business models, creating a situation in which JFE Holding's effort to present greater detail could obscure the overall picture of its Group-wide CSR management behind layers of CSR reports for each operating company. The latest improvements, however, have made it possible to share information reflecting the business characteristics of each operating company while sufficiently preserving the format of a group CSR report.

There are many other examples one could mention, including disclosure of the ratio to consolidated sales, which clarifies the financial composition of each business model; an explanation of the CSR system of each of the three operating companies; identification and disclosure of major risks and business opportunities; progress on sorting, integrating and reorganizing information regarding the management approach; an expanded presentation of quantitative data; a decision to disclose information on employee gender; data on childcare and nursing care leaves, now available for all three operating companies; the chronological ordering of workers' injury data; and the inclusion of notes explaining the use of guidelines in accordance with the GRI G4 Sustainability Reporting Guidelines. This list represents just some of the major improvements in this report.

2. Expansion of the Reporting Boundary

Another improvement was the expansion in the reporting boundary for quantitative data, which resulted in disclosing the names of major consolidated subsidiaries of the three operating companies included in the scope of reporting. While consolidated representation of the reporting boundary is an essential element of a CSR report, full representation has presented a significant hurdle for Japanese companies, which find it difficult at times to collect data from consolidated subsidiaries. In its latest Environmental Data Book, the JFE Group has included the major consolidated subsidiaries of its three operating companies within the scope of its data collection and disclosed the names of these subsidiaries. This is a major step forward in the transition toward consolidated representation in JFE's CSR Report.

3. External Recognition of the Working Environment

JFE Holdings was selected as a "Nadeshiko Brand" company for FY2013, representing very strong external recognition of the JFE Group's working environment for women and providing evidence that the Group's CSR management has made an impact. In the reporting fiscal year, programs offered by the three operating companies to support work-life balance were also disclosed, thereby informing readers of the remarkable range of initiatives that are in place at JFE, a company that had already excelled in this area.

4. Challenges Going Forward

Expanding the reporting boundary presents JFE with its next challenge – disclosing the status of its value chain initiatives, which should be included in any contemporary CSR report. Compared with information on downstream efforts, such as the development of eco-friendly products, we have not seen much progress regarding disclosure of upstream efforts. There should also be an appropriate level of disclosure on the Group's evaluation of materiality, which forms the basis of selecting information and would enable readers to assess the relevance of information disclosure.



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