

JFE Group
CSR Report
2011



Editorial Policy

The JFE Group CSR Report 2011 presents the basic policy, activities and achievements in FY2010 (ending March 31, 2011) in regard to the environmental and societal aspects of business conducted by JFE Holdings, Inc., the holding company of the JFE Group, and its operating companies. This report was edited and produced in accordance with the Guidelines for Environmental Reports (2007 edition) issued by Japan's Ministry of the Environment and the Sustainability Reporting Guidelines Version 3.0. of the Global Reporting Initiative (GRI).

Organizations Covered in the Report

- **Holding company:** JFE Holdings, Inc.
- **Five operating companies in the JFE Group:** JFE Steel Corporation, JFE Engineering Corporation, Universal Shipbuilding Corporation, JFE Urban

Development Corporation, and Kawasaki Microelectronics, Inc.

- **Group companies controlled by the five operating companies:** 234 (190 consolidated subsidiaries and 44 companies under the equity method)

Period Covered

The CSR Report 2011 mainly covers activities carried out in FY2010 (April 1, 2010 to March 31, 2011), but also describes selected activities that occurred either before or after this period.

Changes in Data

The report uses actual figures for JFE Steel Corporation's energy consumption and CO₂ emissions in the previous fiscal year, rather than estimates, which had been used until FY2009.

Corporate Vision

The JFE Group contributes continuously to society with the world's most innovative technology.

Corporate Values

Challenging Spirit, Flexibility, Sincerity

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Related Information

Additional information about CSR management, the Environmental Sustainability Report, and the Social Performance Report are provided in the PDF brochure and web pages below.

Compilation of Environmental Data

Supplementary data on environmental initiatives (PDF)

 www.jfe-holdings.co.jp/environment



JFE GROUP TODAY 2011

Annual report (PDF) on JFE Group operations in FY2010

 www.jfe-holdings.co.jp/en/investor/library/group-today



Website Company Profile

JFE Group corporate vision, general outline, corporate governance, etc.

 www.jfe-holdings.co.jp/en/company



Website CSR (Society and Environment)

JFE Group social and environmental initiatives

 www.jfe-holdings.co.jp/en/environment



Website Investor Information


JFE Group management, financial information, stock and rating information, etc.

 www.jfe-holdings.co.jp/en/investor



Website ecobeing

Information about ensuring a healthy planet for future generations. Website managed by Klee Inc. in cooperation with Corporate Planning Department of JFE Holdings, Inc.

 www.ecobeing.net (Japanese only)



The JFE Group contributes continuously to energy optimization and environmental protection with the world's most innovative technology.



Before beginning, I express my deepest sympathies to everyone affected by the Great East Japan Earthquake of March 11, 2011. The JFE Group has made it a top priority to help rebuild infrastructure for the reconstruction of the earthquake-afflicted areas. In view of the tight supply and demand situation for electric power, we have made an utmost effort to conserve electricity and cooperate with power companies to supply surplus electricity from our operations. The JFE Group will continue to exert an all-out effort to help the earthquake-affected areas recover.

Actions on the Environmental Front

As a result of decisions taken at COP10 and COP16 in 2010, post-Kyoto Protocol initiatives, biodiversity and other global environmental issues have been intensely scrutinized. The JFE Group, as a corporation involved in a broad array of fields, including its core steel business, as well as engineering and shipbuilding, regards environmental preservation as the key to long-term sustainability and therefore pursues environmentally sound and sustainable business in line with the Group's environmental vision and environmental policy.

Steel Business

Three eco-friendly initiatives

JFE Steel Corporation, in order to further upgrade its

world-class energy-saving and green technologies, pushed ahead with three eco-friendly initiatives — eco-processes, eco-products and eco-solutions — in accordance with a program of voluntary actions being promoted by the Japan Iron and Steel Federation (JISF) in a bid to achieve its CO₂ emission reduction target.

Under its eco-processes initiative, JFE Steel took further steps to reduce energy consumption and CO₂ emissions, aiming to achieve the JISF target of 10% less energy consumption (including 9% less CO₂ emissions) within the FY2008–2012 period compared to FY1990 levels. In FY2010, the company began operating energy-saving facilities that immediately produced their intended results. As part of JFE Steel's participation in the COURSE50 Project, which aims to drastically reduce CO₂ emissions through innovative technologies, an experimental plant was put into operation at the Fukuyama plant of the West Japan Works in February 2011.

In the field of eco-products, JFE Steel is contributing to low-carbon societies with products and services that leverage the company's unique Only one and market-leading Number one technologies. The company continued to develop high-function steel products, such as high-tensile steel sheets for automobiles, high-strength plates for ships, and high-performance construction steel. Going forward, JFE Steel will continue to pursue products

and services that help to lower environmental loads.

Under its eco-solutions initiative, JFE Steel innovates technologies for environmental protection, energy savings, and CO₂ reduction. This effort includes participation in the Global Sectoral Approach of the World Steel Association. In FY2010, JFE Steel formed a comprehensive tie-up with JSW Steel Ltd. of India and examined opportunities for providing energy-saving technologies to Philippine Sinter Corporation (PSC). Going forward, the company will continue to look for ways to transfer technologies in the name of global warming prevention.

Engineering Business

Products and services for low-carbon societies

JFE Engineering Corporation strives to reduce environmental loads through eco-products and services for low-carbon societies.

In FY2010, JFE Engineering established the Green Project Headquarters and commenced efforts to commercialize next-generation products that reduce environmental loads, including solar energy power-generation systems, super-rapid chargers and air-conditioning systems that utilize geothermal heat. The company also worked to develop a broader market for its ballast water management system, which helps to preserve the marine environment and biodiversity.

JFE Engineering pursues greener, reduced-load operations by establishing environmental targets and indicators for its manufacturing, construction, and administrative divisions. In FY2010, targets were exceeded in areas such as industrial waste recycling and CO₂ emissions reduction.

Shipbuilding Business

Eco-ships for CO₂ emissions reduction

Universal Shipbuilding Corporation is reducing environmental loads in its production as well as product-development operations. Production-related initiatives focused on global warming countermeasures, control of industrial waste, control of volatile organic compounds, and monitoring of materials under the Pollutant Release and Transfer Register. Working in line with the voluntary action program of the Shipbuilders' Association of Japan. Targets in almost all categories were achieved in FY2010.

In product development, Universal Shipbuilding strives to reduce CO₂ emissions by developing eco-ships. On the hardware front, efforts focus on the enhancement of propulsion efficiency and fuel efficiency. Other efforts are aimed at energy savings through optimized navigation. In FY2010, the company established the Next-Generation

Ship Development Department and tasked it with the mission of developing a "super-energy-saving ship" by upgrading and combining the above-mentioned technologies together with renewable energy technologies. In July 2011, the company completed development of a large bulk carrier that reduces greenhouse gas emissions by 25% compared to conventional bulk carriers. Reduced-emission tankers and other types of ships also are being developed. Universal Shipbuilding has set a target of reducing the CO₂ emissions of its ships by 50% by 2020.

Towards Recycling-oriented Societies

Promotion of recycling businesses

The JFE Group is undertaking various recycling businesses, including the use of steel plant infrastructure to turn used plastics into raw materials for blast furnace fuels and the pursuit of community-based recycling under initiatives being introduced by JFE Engineering. Going forward, the JFE Group aims to help establish recycling-oriented societies on a global scale by addressing global environment problems proactively, including overseas.

Activities with Society in Mind

Corporate Values and Standards of Business Conduct have been put into practice to help realize the JFE Group's corporate vision of contributing continuously to society with the world's most innovative technology. Initiatives are being pursued diligently in the areas of safety, disaster prevention, product quality, and human rights, in addition to stronger compliance and environmental awareness. The JFE Group conducts business that is conducive to the interests of all stakeholders, including customers, clients, shareholders, investors, and community residents, steered by an equitable, fair, and transparent corporate governance system.

The JFE Group aims to continue earning people's trust through an all-out effort to realize sustainable societies, guided by its corporate values — Challenging Spirit, Flexibility and Sincerity. We welcome frank and straightforward feedback from all interested parties.

September 2011

Hajime Bada

President and CEO
JFE Holdings, Inc.

Responding to the Great East Japan Earthquake

The JFE Group has given top priority to rebuilding infrastructure and supplying steel products necessary for reconstruction of the earthquake-afflicted areas. Given the tight supply and demand situation for electric power, the Group has also worked to conserve electricity and cooperate with power companies by supplying electricity generated at its own private power facilities. The JFE Group will continue to make an all-out effort to help restore the earthquake-affected areas in accordance with specific reconstruction plans as they emerge.

Aftermath of the Earthquake

JFE Group Production Bases

Although JFE Steel suspended operations of blast furnaces and many other facilities at the East Japan Works Chiba and Keihin, normal operations were restored quickly as a result of prompt inspections and other expeditious efforts.

The Sendai Works of JFE Bars & Shapes Corporation and Tohoku Steel Corporation (Sendai), both electric-furnace steelmakers within the JFE Steel Group, were severely damaged and forced to suspend operations by the tsunami. JFE Bars & Shapes gradually resumed production and returned to pre-earthquake operational levels by October. Tohoku Steel, however, has been forced to abandon its reconstruction plan. The JFE Group decided to consolidate the operations of JFE Bars & Shapes, Tohoku Steel, and two other electric-furnace steelmakers by April 2012, striving to build a new optimum structure for production and sales.

In the JFE Engineering Group, Tohoku Dock Tekko K.K. (Shiogama) and Shinko Recycle Corporation (Sendai) suspended their operation after

being hit by the tsunami, but restoration efforts enabled them to resume by late April.

No hazardous substance was emitted or reported missing from the tsunami-affected plants, nor have the plants caused any environmental damage.

Electric Power Shortage

Electric Power Saving

- To avoid electrical power shortages in eastern Japan, JFE Steel reduced daytime operations at the East Japan Works and increased nighttime production at the West Japan Works.
- JFE Group companies made efforts to conserve electrical power by adopting casual dress code, lowering lighting where possible, and raising preset temperatures for air conditioning.

Electric Power Generation

- At the request of Tokyo Electric Power, JFE Steel raised its electrical power supply by approximately three times. The 390,800 kW power plant in its steelworks was operated at full capacity 24 hours every day. The power plant is normally run only

during the daytime on weekdays.

Also JFE Steel resumed operation of its 156,000 kW power plant at Setouchi Joint Thermal Power Co. to support Kansai Electric Power Co.

Crisis Management

JFE Holdings implemented emergency steps in cooperation with operating companies and in accordance with the Group's crisis management policy, giving topmost priority to several key issues:

- Securing and confirming the safety of executives, employees, and their family members;
- Early confirmation of damage to the JFE Group as a whole and continuation of business operations;
- Preservation of corporate assets;

- Contribution to early stabilization of regional economies; and
- Communication and cooperation with customers, shareholders, local communities, governments, and markets.

JFE Steel, JFE Engineering, and other operating companies worked expeditiously to confirm the safety of employees and their families, confirm and restore operations, and support Group companies that suffered damage from the earthquake. Learning the lessons from the Great East Japan Earthquake, the adequacy of responses to the tsunami and other measures will be reviewed to improve readiness for the future.

Support for Reconstruction

The JFE Steel Group has given top priority to production and delivery of materials required to construct temporary housing and restoration of lifeline infrastructure in the affected areas.

The JFE Engineering Group sent numbers of engineers and technicians into the affected areas

immediately after the earthquake to support efforts to reconstruct gas and water pipes and garbage incinerators. The Group has also contributed to recovery efforts by helping to construct, operate, and manage temporary incinerators for the disposal of earthquake-generated waste in Sendai city.

Gas Pipeline Network

The JFE Engineering Group dispatched teams of about 200 experienced staffs immediately after the earthquake. In Sendai, they checked and examined damage of the lines thoroughly and repaired them to support recovery of gas supply to households.



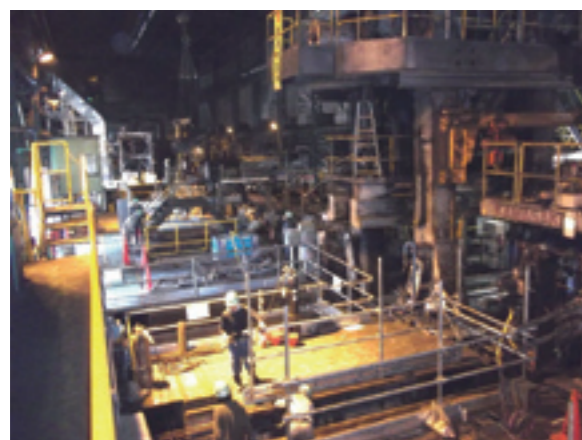
Check and repair of gas pipe channels in Sendai immediately after the earthquake

Incinerators for Earthquake-generated Waste

JFE Engineering, in response to strong requests from earthquake-affected communities, managed to commence operation of temporary incinerators for earthquake-generated waste in only three months after the start of construction.



Testing first incinerator for disposal of earthquake-generated rubble



Reconstruction of JFE Bars & Shapes' Sendai Works



Removal of roof on JFE Bars & Shapes' Sendai Works

New Possibilities for Steel and Related Materials: Exploring Broader Applications throughout Society — JFE Group

In 2002, Nippon Kokan K.K. (NKK) and Kawasaki Steel Corporation joined forces to launch the JFE Group under the holding company JFE Holdings, Inc. In the years since, the JFE Group has contributed to society by developing and implementing some of the world's most advanced technologies. Going forward, the Group aims to build on its reputation for excellence in a range of key fields.

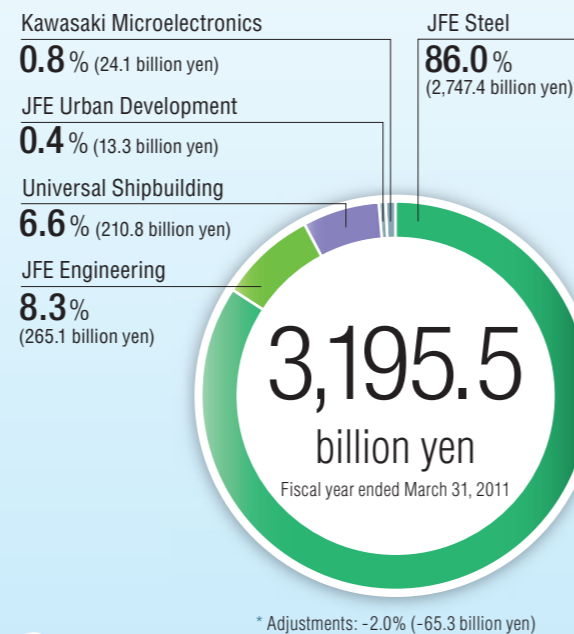
Holding Company

JFE Holdings, Inc.

Maximizing Corporate Value

JFE Holdings performs the key roles of strategic planning, risk management, and external accountability as the holding company of the JFE Group, enabling Group companies to devote their full attention to the enhancement of competitiveness and profitability by establishing optimum business execution structures in accordance with characteristics of their respective business areas.

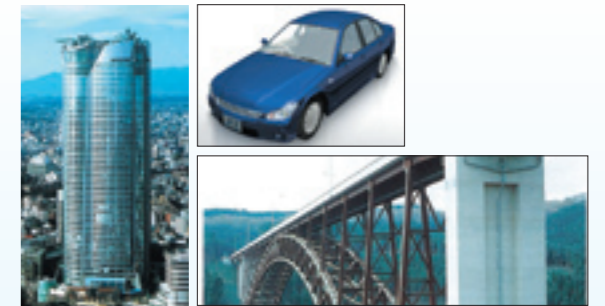
Group Sales Breakdown



Steel Business

JFE Steel Corporation

"Only One" and "Number One" Products for the World
 JFE Steel is one of the world's leading integrated steel producers. A strong international player with a sophisticated production system consisting of two major steelworks, one each in eastern and western Japan, JFE Steel engages in the production and sales of branded "Only One" and "Number One" products, plus a wide range of other extra-value products incorporating the company's cutting-edge technologies and development know-how.



Engineering Business

JFE Engineering Corporation

Innovative Technologies for Energy and the Environment

JFE Engineering technologies enhance the effective use of resources for clean energy. In addition to its core businesses in urban environmental infrastructure and energy, JFE Engineering has developed specialized expertise in the fields of industrial machinery and steel structures, such as bridges.



Shipbuilding Business

Universal Shipbuilding Corporation

Meeting Global Needs with Energy-saving Technologies

With its "fleet" of five shipyards and one technical research center, Universal Shipbuilding has become a leader in the construction and repair of large merchant ships, including tankers, special vessels such as AHTSVs, minesweepers, and icebreakers.

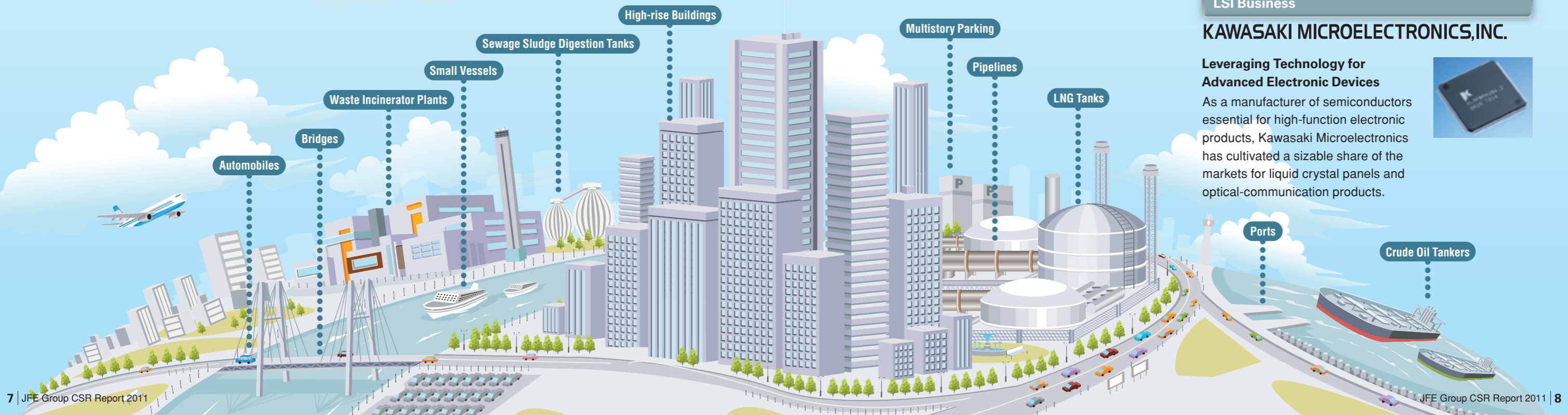


LSI Business

KAWASAKI MICROELECTRONICS, INC.

Leveraging Technology for Advanced Electronic Devices

As a manufacturer of semiconductors essential for high-function electronic products, Kawasaki Microelectronics has cultivated a sizable share of the markets for liquid crystal panels and optical-communication products.



Activities to Prevent Global Warming



Promoting the “Three Ecos” and Development of Innovative Technology

Hiroshi Nishizaki

Vice President
JFE Steel Corporation

In this day and age of rapid social change, corporate activities, as well as global environmental issues, are being influenced from many angles. These also are times of great upheaval, both political and economic. But one thing has remained unchanged, and that is the power of advanced technology to deliver tangible results leading to practical measures. We have developed and propagated numerous technologies based on this philosophy. In recent years, we have extended these achievements even beyond domestic steel production, to the benefit of other industries as well as overseas steel manufacturers.

We have been promoting the “three ecos,” namely, eco-processes, eco-products and eco-solutions. Eco-processes help to reduce CO₂ emissions during steel production through cutting-edge, energy-saving technology and facilities. Eco-products incorporate highly functional steel materials for energy savings at the product-utilization level. And finally, eco-solutions reduce CO₂ emissions on a global scale through the deployment of world-class technologies to partners overseas.

In the field of eco-processes, we were hugely successful in optimizing operation, improving production facilities and incorporating advanced new technologies in FY2010. As a result, we succeeded in improving CO₂ intensity in the production of crude steel by more than 20% from FY1990 levels. Super-SINTER®, one of our unique, energy-efficient production technologies, won the grand prize in the Nikkei Global Environment Technology Awards*1 in November 2010.

We continued to develop eco-products, including high-strength steel sheets such as NANO HITEN®, in which the crystalline structure of steel is altered at the nano level to produce lighter automobiles with equal or improved structural strength, thereby helping to reduce CO₂ emissions through improved fuel efficiency.

In eco-solutions, we transferred energy-saving technologies to overseas group companies and affiliates and actively participated in international bodies, such as

the World Steel Association, APP*2 and the Japan–China Iron and Steel Association Environmental Preservation and Energy-Saving Advanced Technology Assembly*3, to cooperate in CO₂ emissions reduction on a global level.

We expect our eco-process technologies to enable us to achieve the Japan Iron and Steel Federation’s voluntary target of a 9% cut in CO₂ emissions from FY1990 levels by FY2012. Thanks to our three ecos, however, our annual emissions reduction is already estimated to be 70 million tons. We intend to cut future emissions even more drastically through innovative new technologies such as “ferro-coke,” which we expect to become a highly efficient new blast furnace feed, and further innovative CO₂ reduction technology, “COURSE 50.”

Going forward, we intend to further leverage our advanced technologies for reduced greenhouse gas emissions both in Japan and internationally, and thereby continue to contribute to the effort to combat global warming.

1 Nikkei Global Environment Technology Award

Awards program recognizing outstanding achievements in assessment, research, technological development and practical applications for the global environment.

2 APP (Asia-Pacific Partnership on Clean Development and Climate)

Established in April 2006 by the governments and private sectors of Japan, Australia, China, India, South Korea, and the U.S. (joined by Canada in 2007).

3 Japan–China Iron and Steel Association Environmental Preservation and Energy-Saving Advanced Technology Assembly

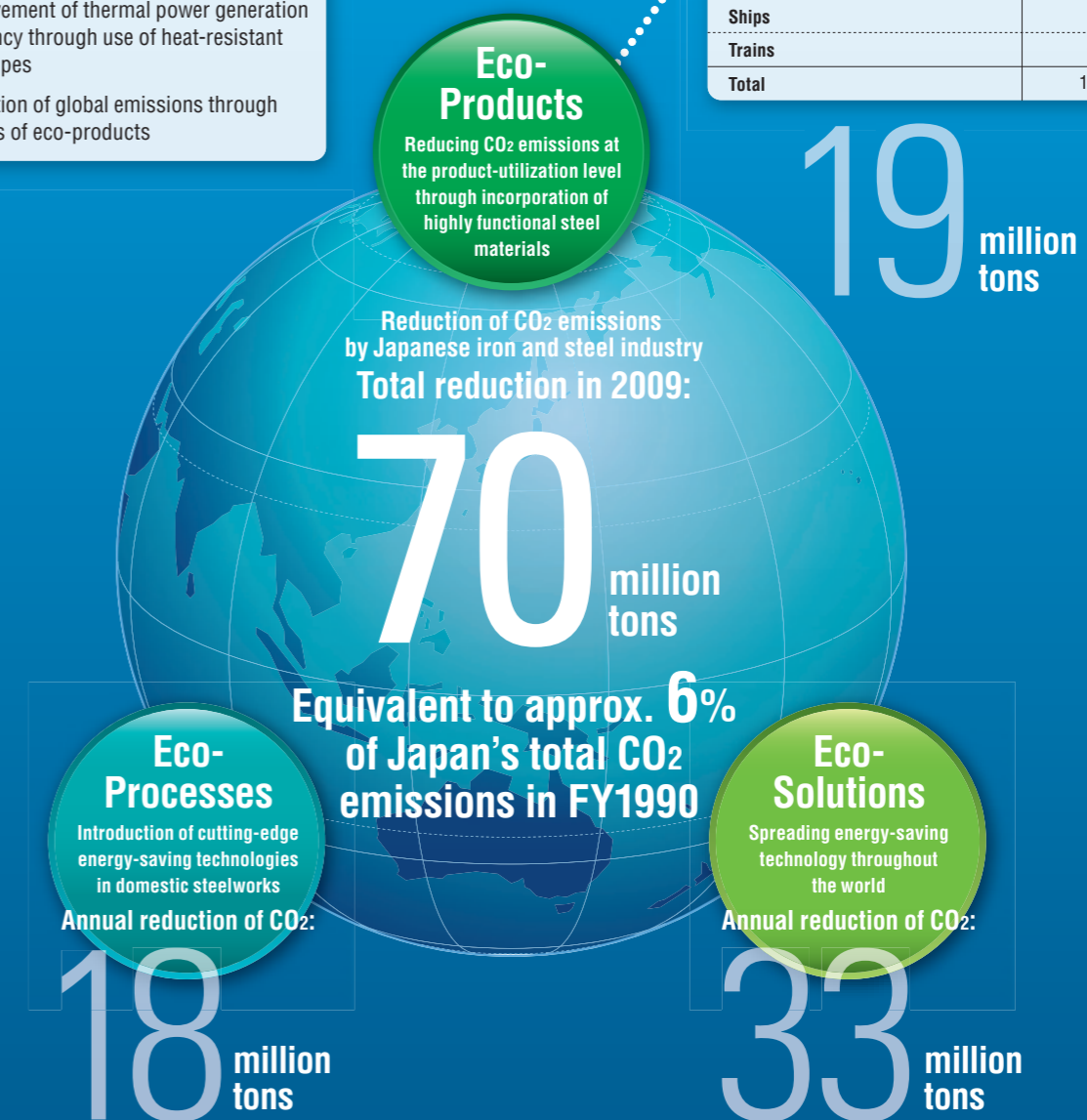
Held for the first time in July 2005, where top officials of Japan and China concluded a memorandum in Beijing. Specialists have gathered for technological assemblies every year since.

Combating Global Warming through the “Three Ecos” (Japan Iron and Steel Federation)

- Weight reduction of automobiles, ships and trains through use of high-strength steel materials
- Reduction of conversion loss in transformer loss through use of high-performance electrical steel sheets
- Improvement of thermal power generation efficiency through use of heat-resistant steel pipes
- Reduction of global emissions through exports of eco-products

CO₂ Reductions with Eco-Products (Million tons/year)

Products	2009
Automobiles	8.4
Transformers	6.4
Boilers for thermal power generation	2.0
Ships	1.8
Trains	0.2
Total	18.8



- Japan has achieved the world’s highest level of energy efficiency since the 1970s oil crises through advanced energy-saving technologies
- Continued reduction of CO₂ emissions is expected through the early implementation of innovative technologies currently under development

- Compiled a list of state of the art energy-saving technologies and promoted them overseas
- Supported international efforts to reduce CO₂ emissions by assisting overseas steelworks with energy-saving initiatives
- Wider use of Japanese advanced technologies could help reduce CO₂ emissions by an estimated 340 million tons per annum

Data: Estimates by Japan Iron and Steel Federation

1 Activities to Prevent Global Warming



Lighter, Stronger and More Eco-friendly

JFE Steel provides unique and highly functional steel materials that contribute to energy efficiency and CO₂ reductions at the product-utilization level. Production of highly functional steel materials requires controlling the amount of trace elements, precise regulation of temperature during rolling, and other advanced technologies to manage the crystalline structure of steel at the nano order level.

Improving Fuel Efficiency through Weight Reduction

High-strength Steel Plates for Ships

The high-strength steel plates provided by JFE Steel are produced with precise temperature control to achieve high strength and weldability. The result is lighter, more fuel-efficient ships, as well as energy savings during ship building.



Super-sized ore carrier (specialty vessel) incorporating high-strength steel plates

Reduced Environmental Impact through Weight Reduction

Highly Functional Steel Construction Materials

Large, high-rise structures such as Tokyo Sky Tree® require highly functional steel construction materials that combine high strength with easy handling.

Highly functional steel plates, shapes, pipes and other steel construction materials developed by JFE Steel contribute to weight reduction and resource savings in high-rise structures worldwide.



Courtesy: Obayashi Corporation

Principals: Tobu Railway Co., Ltd. and Tobu Tower Sky Tree Co., Ltd.

Okochi Memorial Foundation Prize

High Strengthened Steel Sheet for Automobiles

Greater Fuel Efficiency and Collision Safety

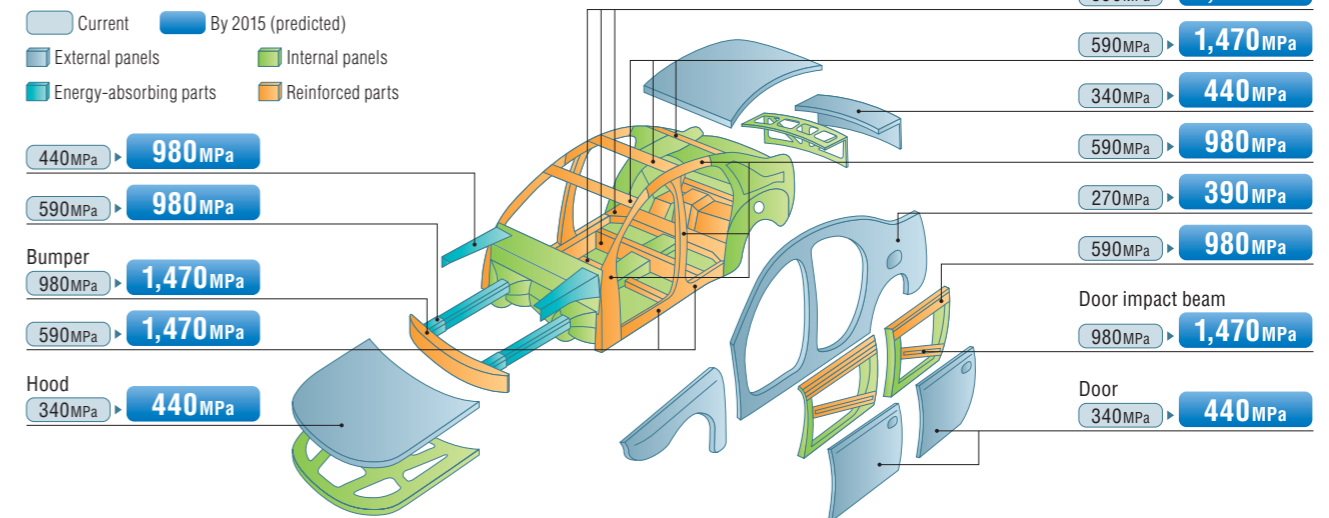
The market, while demanding lighter automobiles for better fuel efficiency and reduced CO₂ emissions, also is calling for improved collision safety through increased vehicle strength.

To maintain structural strength, strengthened thin steel sheets are used for the structural frame components of automobiles. Although strengthened materials typically lead to lower formability, JFE Steel's



High strengthened steel sheet answers the demands for lightness, strength and easy formability.

HITEN for Stronger Parts



Press-formable HITEN Materials Made with Unique Designs and Mass-production Processes

To mass-produce HITEN materials, JFE Steel developed a unique Water-Quench Process (WQ Process) in a continuous annealing furnace, part of the process for manufacturing cold-rolled steel sheets. The WQ Process, which boasts the world's fastest cooling speed (approx. 1,000°C/sec), produces extremely high-strength high-grade HITEN for lighter structural frame components and other automotive parts as well, from collision safety components like bumpers and door impact beams to seat frame parts.

Furthermore, by homogeneously dispersing ultra-fine carbides of nanometer size¹ within the steel, we succeeded in developing the world's first NANO HITEN[®] that retains press formability² equivalent to our former 440MPa grade HITEN while also offering the strength of 780MPa grade HITEN. NANO HITEN[®] is used extensively in chassis parts and structural components of automobile bodies, contributing greatly to weight reduction, for which JFE Steel was awarded the 57th Okochi Memorial Foundation Prize in FY2010.

¹ One billionth of a meter. The thickness of human hair is around 100,000 nanometers.

² **Press formability:** Stretchability required of high-strength steel sheets for press molding (e.g. automobile parts) into complex shapes.

CO₂ Emissions Reduced by 4.95 Million Tons from 1997 Level

The use of HITEN in automobile structural frame components increased between 1997 and 2006, leading to a 30% increase in the structural strength of automobiles. As a result, the weight of automobiles decreased 9% in 2006 compared to 1997, and CO₂ emissions were reduced by 5.0 million tons.

Wider Use of HITEN through Stronger Materials and New Application Technologies

JFE Steel's unique HITEN technology contributes extensively to the reduced weight of automotive structural frame components, doors, hoods and other external panel parts including chassis. JFE Steel will continue to develop stronger and more formable versions of HITEN in the future, and invest more effort into developing materials. At the same time, the company is steadily pursuing the development of new HITEN technologies for forming, welding and other applications.

1 Activities to Prevent Global Warming



High-efficiency Technology for Eco-friendly Steelmaking

In the process of using coal to reduce iron ore in a blast furnace, the CO₂ emission is unavoidable. With innovative technologies, however, JFE Steel has been striving to cut CO₂ emissions through improved energy efficiency.

Nikkei Global Environment Technology Awards Grand Prize

Super-SINTER®

JFE Steel's Super-SINTER® technology uses hydrogen-rich gases, such as natural gas, to replace a part of the coke breeze used in ore sintering process. The result is greatly enhanced energy efficiency and improved sintered ore quality, which leads to improved energy efficiency in blast furnaces.

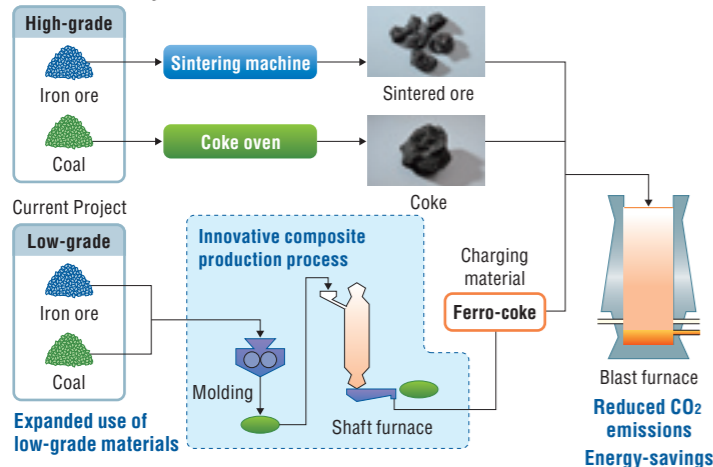
At a sinter plant in the Keihin District, where commercial operations began in January 2009, CO₂ emissions have been reduced by up to 60,000 tons per annum. The system is now being deployed at other plants,



Super-SINTER® system Keihin District plant

beginning with the company's steelworks in the Kurashiki District of West Japan Works.

Current Ironmaking Process



Innovative Composite: Blast Furnace Feed Ferro-coke

Ferro-coke is a composite formed by mixing iron ore with coal into a molded material, which then is dry-distilled. It both improves reduction efficiency within the blast furnace and cuts the amount of reducing agent required. It is expected as an innovative blast furnace feed that is expected to massively cut CO₂ emissions.

JFE Steel has established a pilot facility in the Keihin District and has been running trials in preparation for implementing the technology.



Ferro-coke

Low CO₂ Kawasaki Pilot Brand Award

Recycling Used Plastic as Blast Furnace Feed

JFE Steel turned used plastic into reducing agents by using total process from recycling plant to blast furnace for the first time in the world in 1996, thereby reducing the amount of coke required for the reducing agent, as well as cutting CO₂ emissions. The technology, which previously was awarded the Minister of Economy, Trade and Industry's Award for Circular Resource Techniques and Systems in fiscal 2004, was presented a Low CO₂ Kawasaki Pilot Brand award in 2010 by the city of Kawasaki, the city where JFE Steel developed the technology, in honor of its contribution to CO₂ reduction. More recently, the company also

succeeded in introducing a pulverizing technology for plastic to enhance reduction efficiency inside blast furnaces for further CO₂ emissions reduction.



Used plastic (before pulverizing)



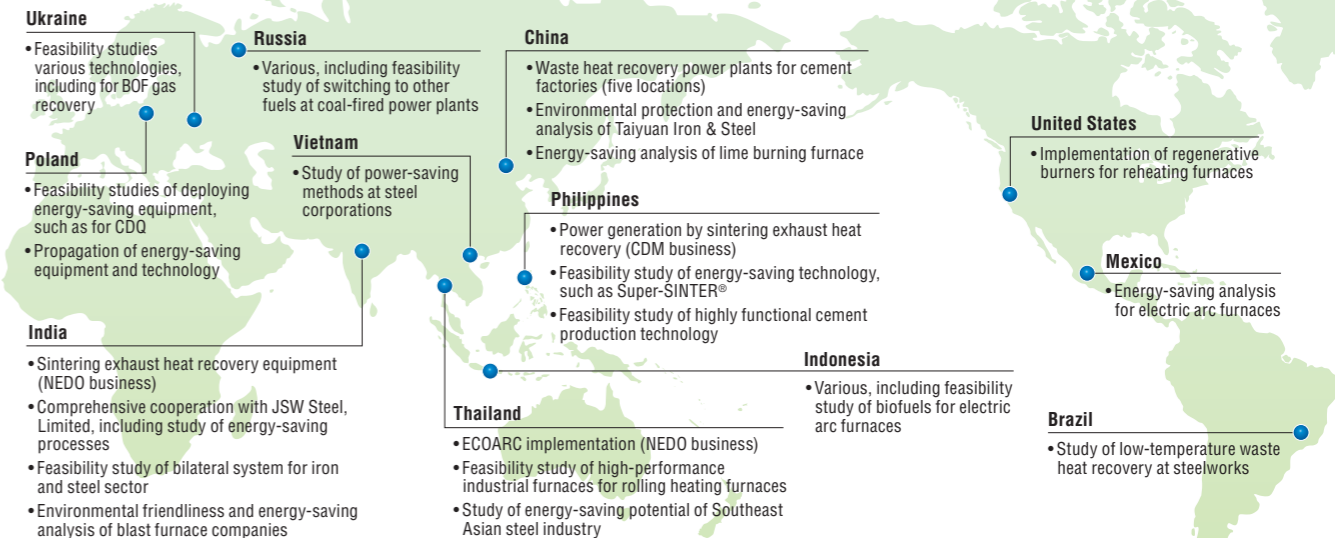
After pulverizing



Exporting Technology Reducing CO₂ Emissions on a Global Scale

JFE Steel, as a member of international bodies such as the World Steel Association and APP Steel Task Force, is playing a leading role in the global promotion of energy-saving and other environmental technologies and the "greening" of steel production.

JFE Group Activities



Exporting Technologies within Public Framework

Energy-saving Technologies

JFE Steel is involved with a CDM project for sinter cooler heat recovery technology at Philippine Sinter Corporation (PSC), a sinter manufacturing subsidiary, for which JFE Steel has acquired 15,000 tons of carbon credit. Furthermore, as part of the FY2010 Project to Promote the Spread of Technologies to Counter Global Warming under the jurisdiction of METI, the company studied the feasibility of deploying various energy-saving equipment, such as "Super-SINTER®" at PSC.

Green Growth of Developing Nations

Cooperation with JSW Steel, Limited in India

In July 2010, JFE Steel acquired an equity stake in JSW Steel Limited of India and concluded an agreement to provide the company with comprehensive technologies, including those for energy-saving and the environment. Based on this agreement, JFE Steel is now engaged in a broad-based effort to improve the energy efficiency of integrated steelworks in the JSW Group.

Global Iron and Steel Industry

World Steel Association



World Steel Association, or worldsteel, a global association of some 180 corporations from 60 countries and currently chaired by JFE Holdings President and CEO Hajime Bada, is managing the Climate Action project to standardize a method for measuring and calculating CO₂ emissions at steelworks worldwide. Eventually the method is expected to become an international standard. Following the annual general meeting in Tokyo in October 2010, the association and the media toured JFE Steel's Keihin District facilities and exchanged opinions on environmental equipment and recycling facilities for urban-type steelworks.



Touring the JFE Steel's Keihin District facilities

1 Activities to Prevent Global Warming



Further Reduction of CO₂ Emissions COURSE50

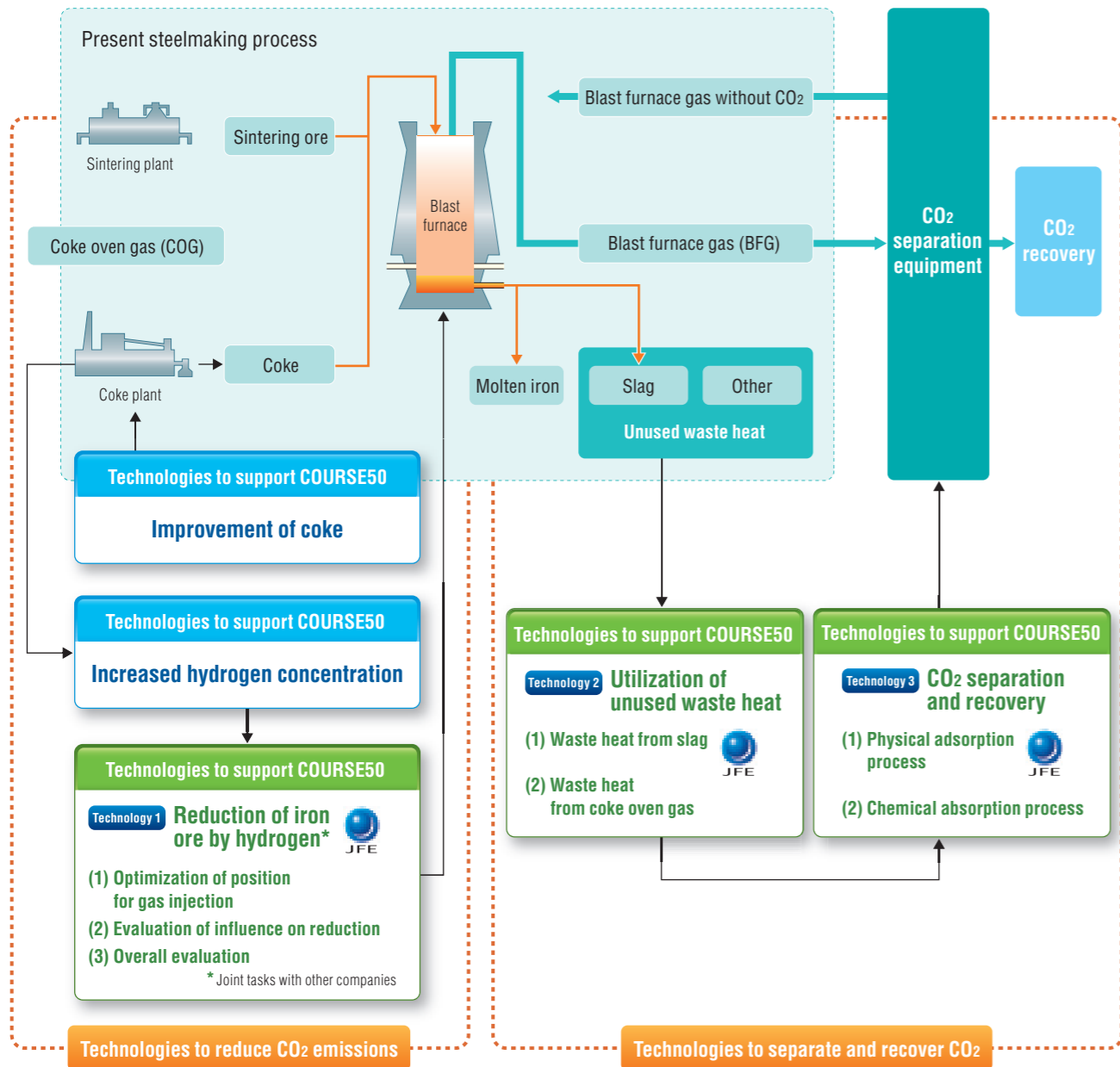


The stable production of low-cost, high-performance steel products through the blast furnace process is a cornerstone of global economic growth and will remain that way in the future.

The iron and steel industry of Japan is striving to achieve a massive reduction of CO₂ emissions from the blast furnace process, and with the support of NEDO it is developing innovative technologies for a next-generation, environmentally harmonized steelmaking process known as COURSE50. The project aims to reduce CO₂ emissions by 30% beginning in 2030.

JFE Steel is playing a central role in the development of all related technologies, including blast furnaces, separation and recovery of CO₂, recovery of unused waste heat, and much more.

COURSE50 — General Outline and JFE Steel's Tasks

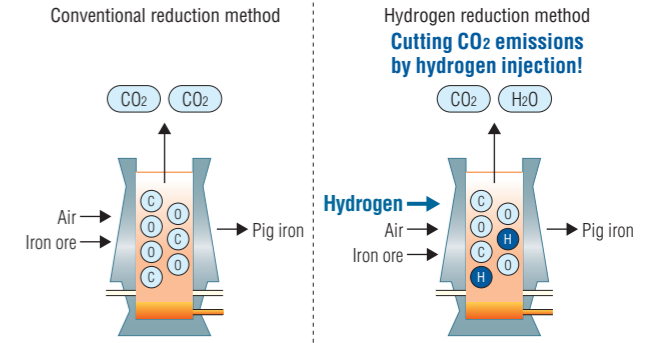


Technology Cutting CO₂ Emissions during Reduction of Iron Ore

1 Hydrogen Reduction Technology

Coke is used to reduce iron ore in the blast furnace process, so replacing part of the coke with hydrogen can cut CO₂ emissions.

JFE Steel is working on a method to inject reformed coke oven gas containing a high concentration of hydrogen into the blast furnace, aiming to develop a reliable new green technology.



Technology Using Waste Heat from Slag at Approx. 1,600°C

2 Technology for Utilizing Unused Waste Heat

The waste heat of slag discharged from the steel converter at a temperature of approximately 1,600°C is currently not utilized. JFE Steel is developing technology to recover this waste heat as steam for use in CO₂ separation and recovery.



Converter furnace

Technology Recovering Over 80% of CO₂ in Blast Furnace Gas

3 CO₂ Separation Technology by PSA

JFE Steel is trying to develop a Pressure Swing Adsorption (PSA) process for efficiently separating and recovering CO₂ contained in blast furnace gas.

The company is developing an adsorbent suitable for separating CO₂. In addition, the company is

optimizing the process operation using the adsorbent. The aim is to recover over 80% of the CO₂ contained in blast furnace gas. A test system built at JFE Steel's Fukuyama District facility, called the ASCOA-3, is now being demonstrated.



Renewable Energy Technologies

Green Project Developing Environmentally Friendly Products

JFE Engineering has long been engaged in environmentally friendly businesses in the field of recycling, urban environment and energy utilization.

Since 2009 we have been putting extra efforts for what we call "Green Projects" to expand our technology-based contributions to the environment by developing new products that help to reduce CO₂ emissions.

Currently we are offering to the society a new energy-efficient air-conditioning system, super rapid charging system for EVs and highly efficient solar power generation system.

Case Study Solar Thermal Power Plant

1 More Efficient Collection of Solar Energy

For solar thermal power generation, which is more efficient than the photovoltaic power generation, JFE Engineering successfully achieved a high level of steam generating efficiency of more than 70% of solar energy collection in collaboration with an optical device manufacturer.

Combining this new technology with our own steam turbines and generators, JFE Engineering now offer a

complete solar power generation system comprising sunlight concentration, heat recovery and electricity generation on our own technology.

Solar thermoelectric power generation is expected to enjoy strong demand in the sunbelt areas in North Africa and the Middle East. We plan to provide commercial models for the market within FY2012.



Experimental solar thermoelectric power-generation system (Tsurumi Works)

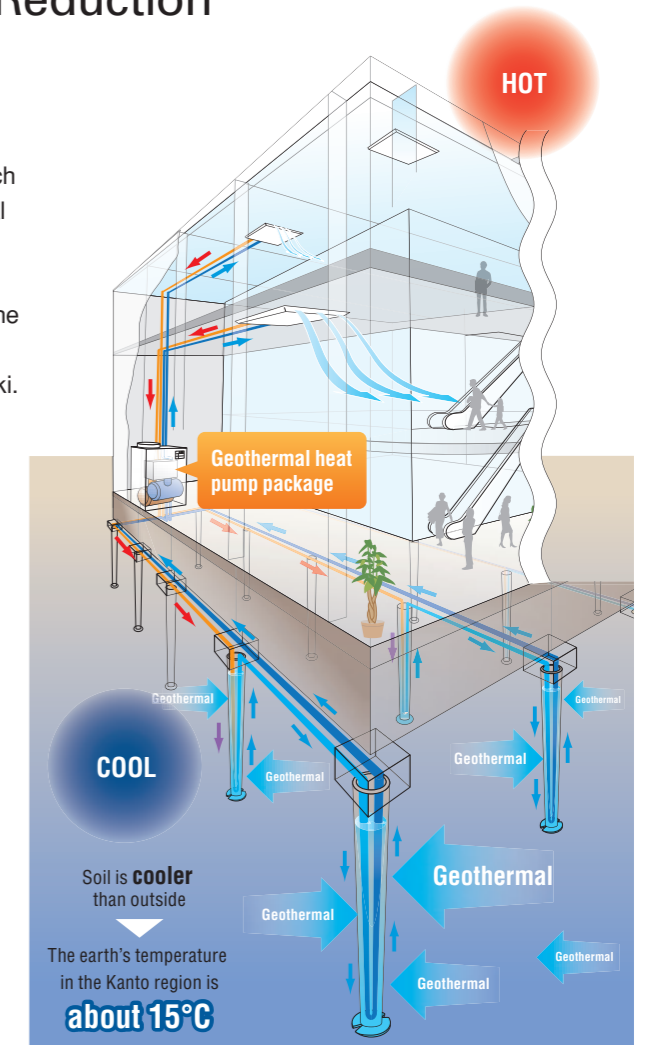
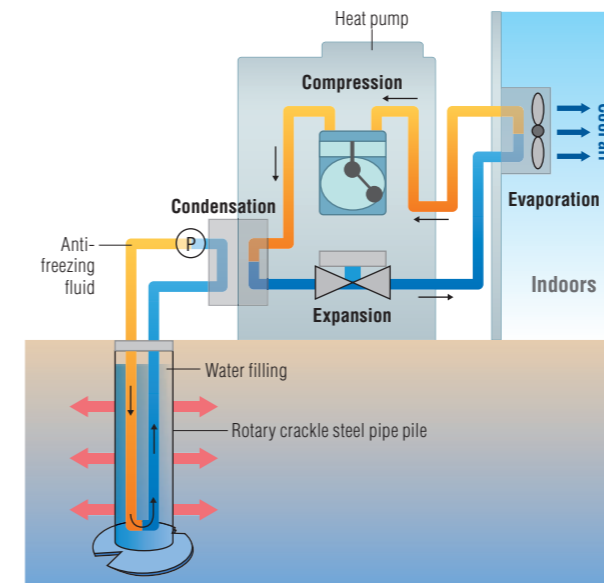
Case Study Geothermal Energy Utilization System

2 Energy Savings and CO₂ Reduction

Underground temperatures in any given place of the world typically remain constant throughout the year. Air control systems based on geothermal heat can be used both for cooling in the summer and heating in the winter, on top of which they produce up to 40% less CO₂ emissions than conventional air conditioning.

JFE Engineering's work on a test system in Kawasaki bordering Tokyo earned the company a commendation from the Japanese Ministry of the Environment. In February 2011, the first equipment for a practical system was installed in Kawasaki.

Geothermal Heat Pump (for cooling)



COLUMN

Mining Geothermal Heat with the "Tsubasa Pile"

Geothermal heat energy can be efficiently collected via foundation piles of buildings. JFE Steel's Tsubasa Pile has rotating wings at the tip of each pile to expedite ground excavation. Besides reducing vibration and noise, this environmentally friendly product eliminates the production of surplus earth requiring disposal.



Tsubasa Pile



Official Commendation for Geothermal Heat Technology

Our air-conditioning system using geothermal heat, originated from a joint research project implemented by Kawasaki and the JFE Group, was designated in environmental technology verification by the Ministry of the Environment in FY2009 and presented with the Environmental Technology Verification (ETV) mark. The environmental effects of the system were verified using testing data developed during the research project. This was the first time an ETV mark was presented for technology designed to utilize geothermal heat to address the phenomenon of urban "heat islands."



Environmental technology verification projects enable organizations selected by the Ministry of the Environment to verify the environmental effects of advanced technologies, to promote the advancement of environmental industries. Technologies whose effects are authorized are presented with an Environmental Technology Verification (ETV) mark.

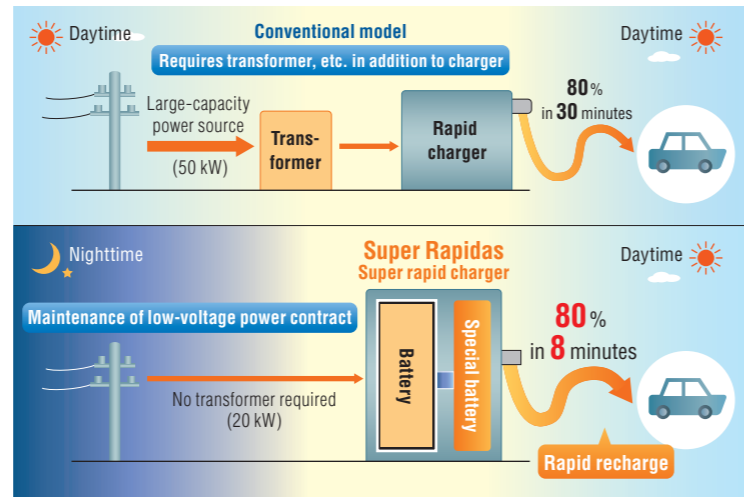
2 Renewable Energy Technologies

Case Study Super Rapidas: Super Rapid Charger

3 Supporting the Wider Use of Electric Vehicles

More and more automobiles on the road are running on electricity in response to mounting concerns for the environment and energy resources. One of the key challenges going forward is how to reduce the time to recharge an EV's battery.

In June 2010, JFE Engineering responded by introducing its Super Rapidas extra-high-speed battery recharger capable of replenishing 50% of battery capacity in 3 minutes and 80% in 8 minutes, which compares very favorably with conventional models that require 30 minutes for an 80% recharge.



Demonstration Test of Electric Buses to Promote Super Rapid Charger

The company's Rapidas Project Team has been working with SIM-Drive, Mitsubishi Research Institute, Keihin Kyuko Bus, and Kanachu, with assistance from the Ministry of the Environment, to launch a proof-of-concept test of electric buses using super high-speed rechargers beginning in FY2011. Work is now focusing on commercialization of these electric buses.



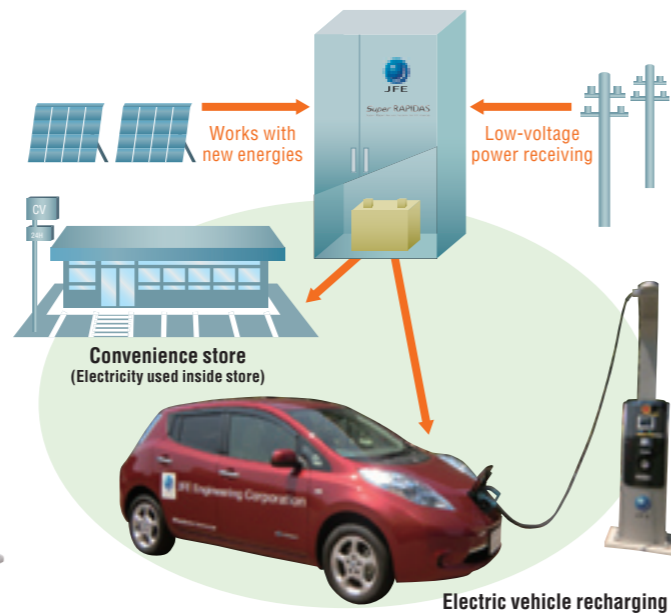
Electric full-flat bus



Recharge station

Super Rapid Charger for Emergency Use at Convenience Stores

Super Rapidas chargers can be used for purposes other than recharging electric vehicles. For example, they can be deployed at convenience stores to ensure electricity during disasters or power outages. They also can help to lower electricity costs by reducing electricity consumption during peak, high-rate periods, and offer the additional benefit of not requiring transformer. Going forward, the plan is for commercial deployment at convenience stores and large retailers.



3

Marine Environment Activities

Case Study JFE Ballast Ace

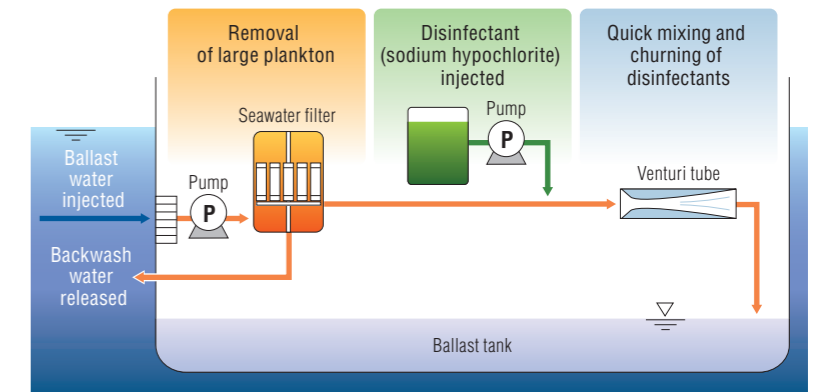
1 Protecting Marine Ecosystems

When a ship empties its cargo at a port, ballast water (seawater) is injected into the ballast water tank of ship to maintain its stability. As ballast water contains marine organisms, when it is released at the next port, it may impact the local marine ecosystem.

To solve this problem, JFE Engineering designed a system to render ballast water harmless so that it can be discharged safely. The system, JFE Ballast Ace can process up to 4,500 m³ of water per hour, the highest rate in the world. The system obtained final approval from the International Maritime Organization (IMO) in March 2010.

Ballast Water Management System

At ballasting (at unloading ports)



Strengthened Sales and Supply

JFE Engineering is strengthening its JFE Ballast Ace sales system in response to the increasing needs of customers. Furthermore, an approval was obtained from Japan's Ministry of Land, Infrastructure, Transport and Tourism to reduce the chemicals used for the system by half, helping to cut running costs by half while still maintaining the system's integrity. Supply facilities are now operated in 20 major ports, including Singapore and Rotterdam, to ensure steady supply to ships using the system. The number of facilities is planned to be further expanded in the future.

Chemical Supply Network



Practical Deployments

Nippon Yusen (NYK) deployed JFE Engineering's ballast water processing system before the international ballast water control convention enters into force. The company's car-carrier ship, Emerald Leader, became the first vessel to use JFE Ballast Ace on a commercial basis.

Later, NYK equipped a second car carrier, Auriga Leader, with JFE Ballast Ace.

JFE Engineering has received additional JFE Ballast Ace orders for a large ship currently in service and two large ships under construction. The company is the first Japanese manufacturer to provide this kind of large-scale treatment system to new ships.

Emerald Leader equipped with JFE Ballast Ace

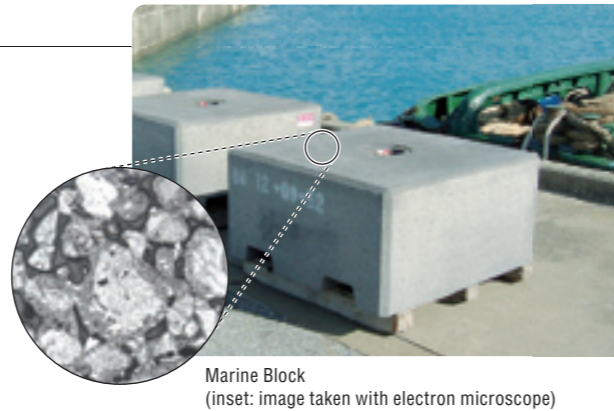


3 Marine Environment Activities

Case Study **Marine Block**

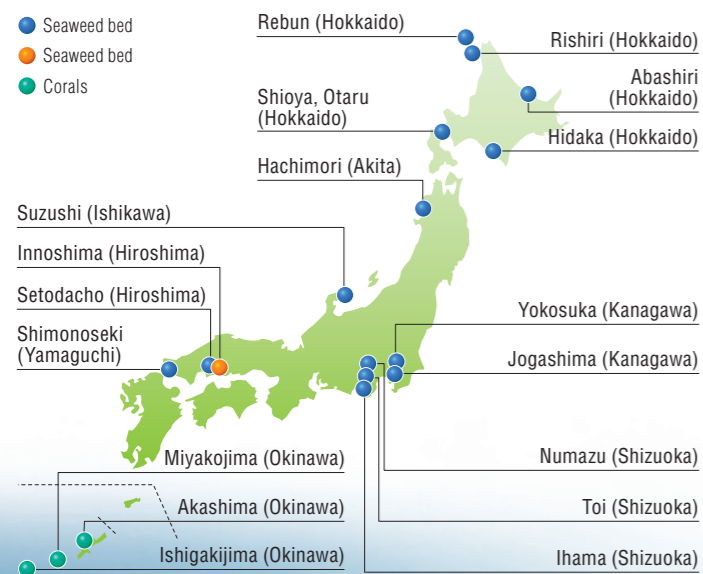
2 Restoration of Coral Reefs through Resource Recycling

Marine Blocks developed by JFE Steel used for the nurture of seaweed beds and coral reefs are large blocks made of solidified calcium carbonate, which is produced through a reaction between CO₂ and steel slag. Calcium carbonate, a primary component of coral reefs, has rough surfaces with small bumps that corals and seaweed adhere to easily. In addition, Marine Blocks contain iron, a critically important element for seaweed, and silica dioxide, a main component of diatom algae. By providing an important base for the restoration of seaweed beds, Marine Blocks can help the oceans to improve their life-nurturing productivity and CO₂ absorption.



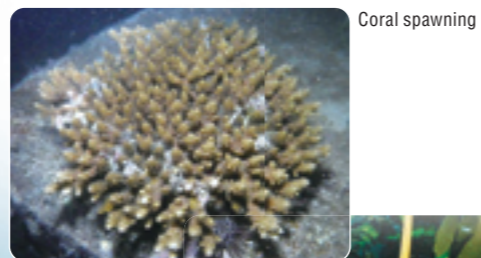
Marine Block (inset: image taken with electron microscope)

Marine Block Demonstration Tests in Japan



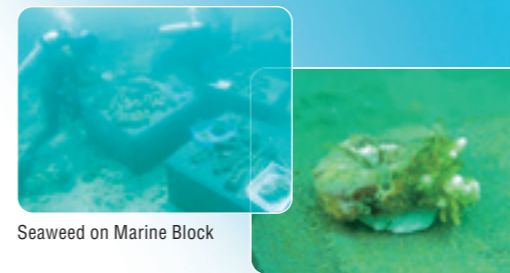
Marine Block Deployments across Japan

Trial deployments of Marine Blocks started in 1997 and have been carried out at 33 islands and coastal areas across Japan. In addition to proving to be instrumental in nurturing corals in the semitropical waters of Okinawa, they have also shown to provide a superior foundation for seaweed in many locations. In Miyakojima, coral spawning even has been observed, clearly demonstrating the usefulness of Marine Blocks in restoring coral reefs.



Coral spawning

Kajime seaweed growing on Marine Block at Jogashima



Seaweed on Marine Block

Coral larvae on Marine Block (magnified)

First Overseas Demonstration Tests (Indonesia)

In Indonesia, Tokyo University of Marine Science and Technology and Sam Ratulangi University (Indonesia) have collaborated in coral research and growing tests since 2007. Full-scale demonstration tests were then carried out under the FY2010 East Asia Energy Saving Promotion Project of the Ministry of Economy, Trade and Industry. Favorable results were reported at a meeting hosted by the Economic Research Institute for ASEAN and East Asia, attracting the attention of many countries, including Indonesia, and raising the awareness of this environmental restoration technology. In Indonesia, symposiums on the tests were held by state governments, stakeholders and researchers, creating momentum for global deployment of Marine Blocks.



Global-scale Collaboration between Iron Recycling and Marine Blocks

Ironmaking and the growth of coral reefs and seaweed —these two seemingly unrelated processes actually have been intertwined through processes extending back countless millennia. Iron is mainly made of iron ore, charcoal, and limestone. Iron ore is formed from deposits of iron ions that have existed in seawater for over two billion years. Charcoal comes from ancient trees that were buried and then remained underground without dissolving. Limestone is the accumulation of

ancient coral and shells.

Ironmaking has enabled ore made from ancient organisms to be converted into a critical material for the development of human civilization. And now recycling efforts are enabling raw materials produced through ironmaking to be returned to the sea as Marine Blocks, which are expected to help protect the diversity of marine organisms.

Communicating with residents and stakeholders

Environmental projects such as coral reef restoration and tree planting require compliance with standards and laws, as well as continuous dialogue with local residents and other stakeholders. This is true both in fishing villages of developing countries and in urban areas of Japan. The key to success is a sense of shared ownership among local people who feel they are in equal partnership with corporations.

Looking at the Marine Block project from this perspective, I believe that the steady accumulation of data for more than 15 years

has led to the formation of a trust-based relationship with stakeholders. By sharing data on subjects such as substance strength and growth speeds, residents' and stakeholders' concerns for matters such as coral reef destruction by typhoons have been resolved one by one through dialogue. These experiences have resulted in the success of this project. I hope such efforts will continue to look for ways to apply this technology in developing countries and to expand its use in other regions, leading to broader and deeper relationships of trust between countries.

Voice



Ryo Kohsaka
Associate Professor
Graduate School
of Economics
Nagoya City University

Corporate Governance

Basic Policy on Corporate Governance

The JFE Group is a business organization consisting of a holding company and four operating companies — JFE Steel, JFE Engineering, Universal Shipbuilding, and Kawasaki Microelectronics.

JFE Holdings stands at the center of the Group's integrated governance system. The Company

functions as the head office responsible for group-wide strategic functions, risk management, and accountability to the public.

Each of the operating companies conducts its business based on an operating system specifically designed for its industry. This allows the companies to be more competi-

tive and profitable.

In the course of fulfilling their respective duties, the holding company and operating companies strive to maximize corporate value for shareholders and other stakeholders.

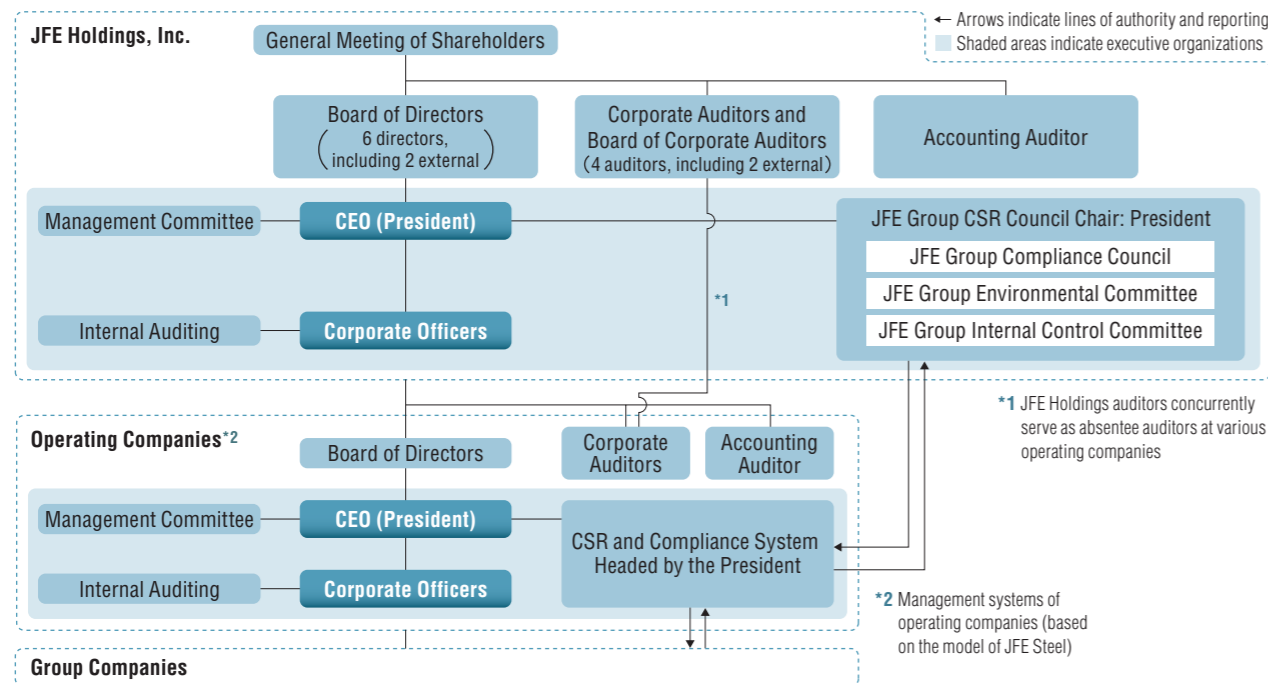
Management

JFE Holdings introduced two external directors in June 2007 to strengthen governance and enhance the fairness, objectivity, and transparency of management. In addition, the term for directors was shortened from two years to one to better clarify managerial responsibility. The Company's board of directors,

which comprises six directors, two of whom are external, is responsible for the supervision of operational performance and the maintenance and improvement of operational efficiency. The board of auditors, which includes two external auditors, monitors operations to ensure the soundness of the business.

JFE Holdings and each of its operating companies have adopted a corporate officer system under which decision-making and execution are separated to clarify authority and responsibility and to accelerate execution.

Management Structure and Internal Control



JFE Holdings Outside Officers and Auditors (as of July 1, 2011)

Position at JFE Holdings	Name	Other Major Concurrent Positions	Reasons for Choosing
Member of the Board	Akimitsu Ashida	Representative and Chairman of the Board, Mitsui O.S.K. Lines Ltd.	Mr. Ashida has made outstanding achievements as the President of Mitsui O.S.K. Lines, Ltd. and has abundant experience in global corporate management. In addition, he has become well versed in societal and economic matters through wide-ranging activities, including serving as vice chairman of the Keizai Doyukai (Japan Association of Corporate Executives). The company deems Mr. Ashida's extensive knowledge and outstanding insight to be highly suited to the position of Outside Director of the Company.
Member of the Board	Masafumi Maeda	Executive Vice President, University of Tokyo	Mr. Maeda has developed an extensive knowledge of metals through many years of research into sustainable materials and material thermodynamics. Experienced in managing universities as a director at the University of Tokyo, he possesses considerable experience in running organizations. The company deems his extensive knowledge and outstanding insight to be highly suited to the position of Outside Director of the Company.
Corporate Auditor	Hiroyuki Itami	Director of the School of Innovation Studies, Tokyo University of Science	Mr. Itami has been actively involved for many years in research of corporate governance, enabling him to acquire extensive knowledge of business management techniques and business strategies. In addition, his research of technological development has given him abundant knowledge of industrial sectors. His broad, independent perspective is deemed to be well suited to contributing to the company as an auditor.
Corporate Auditor	Seiji Sugiyama	Honorary Advisor, Mizuho Financial Group	Mr. Sugiyama has been actively involved for many years in the management of financial institutions, affording him extensive knowledge of management and deep insight into financing and accounting. His broad, independent perspective is deemed to be well suited to contributing to the company as an auditor.

More information on current management: www.jfe-holdings.co.jp/en/company/h-gaiyo

Key Decision Making

Group companies make decisions about key matters based on their own rules and according to clear procedures. JFE Holdings makes decisions about group-wide matters.

Each operating company considers important matters related to the company and its affiliates by holding management meetings, etc., after which its board of directors renders

decisions. JFE Holdings follows this procedure regarding matters important to the company, operating companies, and Group companies.

Structure of Management Committee

Company Name	Chairman	Attendees
JFE Holdings	President	Corporate Officers, President of JFE Steel, President of JFE Engineering, Corporate Auditors
JFE Steel, JFE Engineering, Universal Shipbuilding	President	Members of the Board, main Corporate Officers, Corporate Auditors

Optimal Business Management Systems

The JFE Group employs management systems tailored to the needs of individual Group members through unifying the strategy development and earnings management for individual products and operations.

JFE Steel	Product-sector system
JFE Engineering	Business-sector system
Universal Shipbuilding	Business-division system

Other

Technology development involving multiple Group members and IT initiatives are deliberated in group-wide management organs.

JFE Group Technology Development Committee
JFE Group IT Committee

Corporate Governance

Internal Control

JFE Group's internal control system, which includes risk management, is governed by the Basic Policy for Building an Internal Control System. In accordance with this policy, rules have been established for organizational and operational matters, information storage and management, and antisocial forces countermeasures, as well as rules for meetings such as the Board of Directors, Management Committee, and JFE Group CSR Council. A Corporate Ethics Hotline has also been established. To sustain increases in our corporate value, we regularly confirm the existence and operation of internal controls and make improvements where necessary.

WEB Basic Policy for Building an Internal Control System
<http://www.jfe-holdings.co.jp/en/company/h-gaiyo/index.html>

Strengthening Internal Controls

Internal Audits

JFE Holdings, its principal operating companies, and key group companies have all established internal audit organizations (with a total staff of 158 across all of the companies mentioned as of April 1, 2011) that are auditing each company's operations. In addition, the various internal audit organizations share information in an effort to enhance internal audits of the Group as a whole.

The internal audit managers from each of the principal operating companies also serve concurrently as internal audit managers for JFE Holdings, strengthening ties within the Group.

Audits by Corporate Auditors

JFE Holdings, the operating companies, and Group companies, in addition to undergoing statutory audits, also work to enhance audits by corporate auditors and strengthen ties among corporate auditors through the following activities.

- A total of 53 full-time auditors have been appointed for 42 companies, including JFE Holdings. The operating company staff are dispatched to Group companies as part-time external corporate auditors to perform the duties of corporate auditors. Each absentee auditor performs the functions of a corporate auditor for 3-4 subsidiaries (6 absentee auditors serve a total of 22 companies), enhancing Group governance.
- The JFE Group Board of Auditors is composed of the full-time auditors of each group company and absentee auditors. Subcommittees and working groups are created to address particular themes and meet autonomously throughout the year to share information, research issues, and enhance their understanding (refer to the diagram below). The results of their activities are presented at the General Meeting of JFE Group Auditors and applied by individual corporate auditors in audit activities.

Cooperation between Corporate Auditors and Accounting Auditors

The corporate auditors hold scheduled and unscheduled meetings (a total of six during FY2010) with the accounting auditor (Ernst & Young ShinNihon) in which the latter presents its audit plan, updates on audit work, and detailed information on audit results. During these meetings,

the corporate auditors also receive detailed explanations regarding the accounting auditor's quality management system, explain their own audit plan and other matters to the accounting auditor, and share opinions on various matters with the accounting auditor.

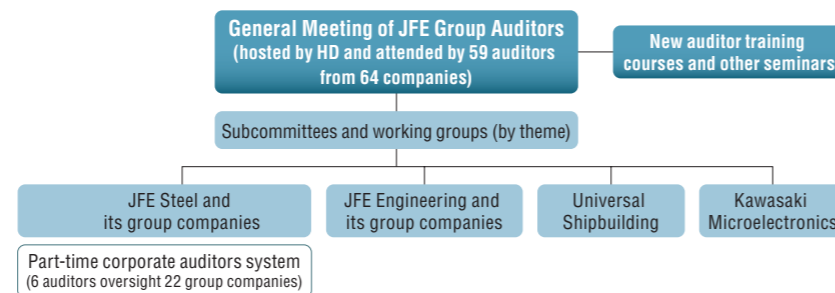
Cooperation between the Corporate Auditors and the Internal Auditing Department

The corporate auditors hold scheduled and unscheduled meetings (a total of four during FY2010) with the internal auditing department in which the latter presents its internal audit plan, updates on internal audit work, and detailed information on internal audit results. During these meetings, the corporate auditors share opinions on various matters with the internal auditing department.

Operating Company Governance

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

Structure of JFE Group Board of Auditors



CSR Management

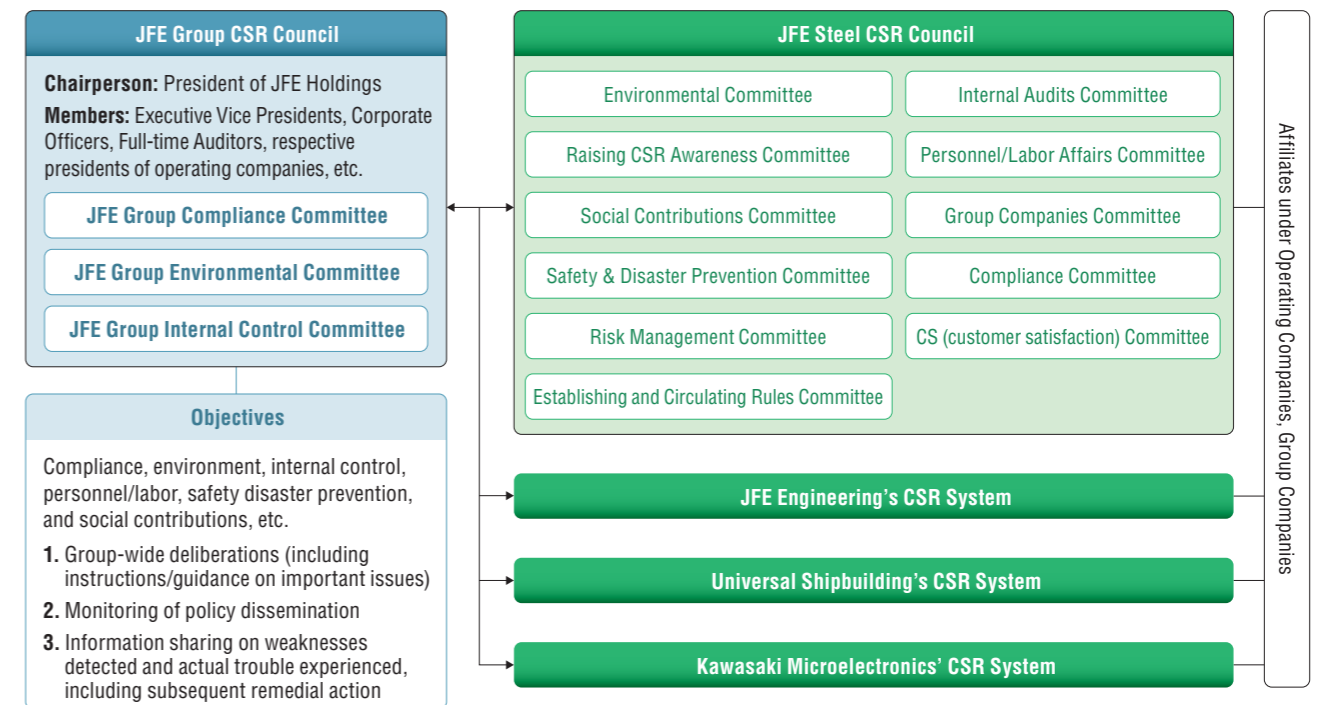
CSR System

The JFE Group is acutely aware of its responsibilities as a member of society. Meeting corporate social responsibilities (CSR) to help create a better society is a core element of the way we manage our businesses, and our efforts have been redoubled in this regard. In October 2005, we established the JFE Group CSR

Council (chaired by the President and convened quarterly every year) at JFE Holdings. This council is structured to supervise and guide the JFE Group's CSR activities toward various issues, including compliance, the environment, personnel/labor, safety, disaster prevention, social contribution, and response

to antisocial forces. We have also established the JFE Group Compliance Committee, JFE Group Environmental Committee, JFE Group Internal Control Committee, and other group-level organizations to deliberate matters in assigned areas and report findings and results to the JFE Group CSR Council.

CSR Structure



Major CSR Activities for FY2010

JFE Steel

JFE Steel, defining CSR as "boosting corporate value by increasing stakeholder satisfaction," regards environmental protection, safety, disaster prevention, compliance, and other matters fundamentally impact-

ing its continued existence as its most pressing concerns. We also focus on: 1) Establishment of a PDCA (Plan-Do-Check-Action) cycle and 2) Strengthening CSR awareness.

The CSR Council, which is chaired by the Company President

discusses CSR matters and policies, and monitors the implementation status of CSR measures. During FY2010, CSR Council meetings were held on 6 occasions during which CSR matters were discussed by 11 committees.

CSR Management

The Customer Satisfaction (CS) committee works to enhance the satisfaction of JFE customers through various initiatives for innovation. For example, to improve the product knowledge of administrative personnel, the committee strengthened training programs about basic steel technology from two perspectives: “JFE — where customers go first” and “JFE — the company customers trust most.” Also, to strengthen services for global customers, the committee encouraged overseas office personnel to participate in annual “Dealing with Customers Seminars.”

At the suggestion of the Social Contributions Committee, the company has expanded hosting activities at local communities, such as plant tours, JFE festivals and sporting events. New initiatives for children include educational programs at elementary schools and the ECO Kids’ Tour program, which arranged visits by elementary and middle school students to the ECO Products 2010 exhibition.

JFE Engineering

JFE Engineering, in order to pursue business activities based on management rooted in CSR, has designed

compliance, safety, disaster prevention, and environmental protection as four basic areas of responsibility. We also promote employee awareness of compliance through direct training and handouts, along with our continuous inspection of work processes to confirm compliance with all laws and regulations.

Universal Shipbuilding

Universal Shipbuilding is promoting business activities that comply with the JFE Group Standards of Business Conduct. In so doing, it is paying special attention to compliance, the environment, and internal controls.

FY2010 saw Universal Shipbuilding implement compliance activities through regular, proactive dispersion of compliance information through an internal message board, company newsletters, and other means.

In FY2011, Universal Shipbuilding will continue to strengthen compliance activities at subsidiaries, alongside ongoing efforts aimed at better CSR awareness overall.

JFE Steel Group Companies

JFE Steel Group companies’ diverse initiatives include measures for

improved safety and health, environmental awareness, and compliance. The initiatives are carried out in accordance with JFE Steel’s CSR activities, BCPs, quality inspections, and antitrust laws.

Group companies share and act on information through conferences (eight in FY2010) in an effort to raise each activity to its next level. JFE Steel also provides monitoring and guidance for each activity.

In addition, JFE Steel distributes CSR News to each JFE Steel Group company.



CSR News

CSR Audit

To ensure that activities with CSR significance are properly handled, the JFE Group’s internal auditing department incorporates CSR themes like environmental management, compliance with the Antimonopoly Law, expense management, overseas

office management, tax law compliance, and safety management in its operational audit. These elements are then examined and verified as part of the auditing process.

If an audit reveals a problem, JFE Holdings’ internal audit depart-

ment and the operating companies then work together to share information within the Group and reflect corrective measures in the CSR activities of Group companies.

Environmental Sustainability Report

The JFE Group and its operating companies carry out initiatives to curb global warming as well as protect the natural environment, promote recycling, and develop technologies to reduce the group’s environmental footprint, all based on our environmental philosophy and policy. This Environmental Sustainability Report highlights projects implemented by the JFE Group and its operating companies in FY2010.

Environmental Philosophy

The JFE Group considers improving the global environment a management priority and promotes business operations in harmony with the environment. These efforts aim to create a prosperous society.

Environmental Policy

1. To reduce the environmental impact of all business operations
2. To make contributions through technologies and products
3. To make contributions through conservation of resources and energy
4. To promote communication with society
5. To promote international cooperation



Geothermal binary power generation based on low-temperature steam and hot water (JFE Engineering, page 43)



Bulk carrier equipped with LEADGE-Bow design for improved fuel efficiency (Universal Shipbuilding, page 48)



Artificial Marine Rocks made of iron-steel slag (JFE Steel, page 40)






Booth at Eco-Products 2010 (JFE Group, page 54)

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Priority Environmental Targets and Results

A+: Target overachieved A: Target achieved B: Target not achieved

Group Companies	Categories	FY2010 Priority Environmental Targets	FY2010 Results	Evaluation	FY2011 Priority Environmental Targets	Refer to Pages
JFE Steel 	Global warming prevention	<ul style="list-style-type: none"> Global warming prevention under Voluntary Action Program of Japan Iron and Steel Federation (Targets based on JISF Voluntary Action Plans. Decrease energy consumption by 10% in FY2008–FY2012 compared to FY1990. Decrease CO₂ emissions by 9% in FY2008–FY2012 compared to FY1990.) 	Energy-saving achievements: <ul style="list-style-type: none"> Fukuyama No. 4 blast furnace stove repaired (January 2010) Fukuyama No. 5 CDQ added (May 2010) Kurashiki No. 4 Super-SINTER[®] deployed (December 2010) Anti-flood measures to protect raw materials at pig-iron facilities in Keihin area (January 2011) (Status of JISF Voluntary Action Plans (for all JISF members). Reduced energy consumption approx. 14% and CO ₂ emissions approx. 15% in FY2008–FY2009 compared to FY1990.)	A	<ul style="list-style-type: none"> Develop new global warming countermeasures in line with JISF's Voluntary Action Plans 	9–16 33–37
	Environmental risk reduction	<ul style="list-style-type: none"> Compliance with new laws and regulations 	<ul style="list-style-type: none"> Raised group-wide awareness of changes to Air Pollution Control Act and Water Pollution Control Act 	A	<ul style="list-style-type: none"> Enhance group-wide compliance structure 	38–39
		<ul style="list-style-type: none"> Voluntary environmental-preservation activities 	<ul style="list-style-type: none"> Continued voluntary control measures for VOC reduction 	A	<ul style="list-style-type: none"> Encourage voluntary eco-preservation activities 	
	Byproduct recycling	<ul style="list-style-type: none"> Continue to develop recycling technology for dust and sludge and deploy equipment 	<ul style="list-style-type: none"> Developed technologies to convert sludge into raw materials by processing waste acid into valuable resources and removing components not easily recycled 	A	<ul style="list-style-type: none"> Deploy recycling equipment for dust and sludge 	21–22 40
Waste control	<ul style="list-style-type: none"> Introduce group-wide electronic manifest system 	<ul style="list-style-type: none"> Introduced electronic manifest system in over 90% of operating companies 	A	<ul style="list-style-type: none"> Deploy electronic manifest system among group companies 	31–32 39	
	<ul style="list-style-type: none"> Develop group-wide waste material collection system 	<ul style="list-style-type: none"> Preparing for deployment of waste control system 	B	<ul style="list-style-type: none"> Implement e-learning concerning waste disposal among group companies 		
JFE Engineering 	Global warming prevention	<ul style="list-style-type: none"> Based on the voluntary action plan on environment defined by the Japan Society of Industrial Machinery Manufacturers, reduce average greenhouse gas emissions (CO₂ from manufacturing) in FY2008–FY2012 by 12.2% compared to FY1997. Scope: Tsurumi Works, Tsu Works and Shimizu Works 	<ul style="list-style-type: none"> 16.0% reduction compared to FY1997 	A+	<ul style="list-style-type: none"> Develop new global warming countermeasures in line with the Voluntary Action Program on Environment of the Japan Society of Industrial Machinery Manufacturers, aiming to reduce average greenhouse gas emissions (CO₂ from manufacturing) in FY2008–FY2012 by 12.2% compared to FY1997 (scope: Tsurumi Works, Tsu Works and Shimizu Works) 	41–42
	Construction site waste reduction	<ul style="list-style-type: none"> Recycle at least 99.5% of rubble Recycle at least 75.0% of mud Recycle at least 80.0% of industrial waste (except rubble and mud) 	<ul style="list-style-type: none"> Recycled at least 99.9% of rubble Recycled at least 97.1% of mud Recycled at least 83.0% of industrial waste (except rubble and mud) 	A+	<ul style="list-style-type: none"> Recycle 99.5% of rubble Recycle 95.0% of mud Recycle 85.0% of industrial waste (except for rubble and mud) 	42
Universal Shipbuilding 	Global warming prevention	<ul style="list-style-type: none"> Reduce per-unit (processed steel weight) electric power consumption by 10% in FY2010 compared to FY1990 (scope: new shipyards) 	<ul style="list-style-type: none"> 22% reduction compared to FY1990 	A+	<ul style="list-style-type: none"> Reduce per-unit (processed steel weight) electric power consumption by 10% compared to FY1990 (scope: new shipyards) 	45–46
		<ul style="list-style-type: none"> Reduce per-unit (operating hour) energy consumption by 1% compared to previous year (scope: group-wide) 	<ul style="list-style-type: none"> Per-unit energy consumption increased by 2.1% compared to previous fiscal year 	B	<ul style="list-style-type: none"> Reduce per-unit energy consumption by 1% compared to previous year (scope: group-wide level) 	
	Waste emissions reduction	<ul style="list-style-type: none"> Recycle at least 85% of waste from production in FY2010 (scope: group-wide) 	<ul style="list-style-type: none"> Recycled 85.5% of waste 	A+	<ul style="list-style-type: none"> Recycling at least 86% of waste from production (scope: group-wide) 	46
	VOC emissions regulation	<ul style="list-style-type: none"> Attain legally regulated 700 ppmC or less in coating facilities with air-exhaust capacity of at least 100,000 m³/hour (scope: Tsu Shipyards and Ariake Shipyard) 	<ul style="list-style-type: none"> Achieved emission requirement of less than 700 ppmC at both Ariake and Tsu shipyards 	A	<ul style="list-style-type: none"> Emissions less than 700 ppmC at coating facilities with air-exhaust capacity of at least 100,000 m³/hour (Tsu and Ariake Shipyards) 	46
PRTR-restricted chemicals monitoring	<ul style="list-style-type: none"> Control emissions and physical transfer of restricted chemicals, particularly xylene, ethylbenzene, and toluene (scope: 5 shipyards) 	<ul style="list-style-type: none"> Emissions and transfer amounts for 3 major chemicals almost equal to previous year 	A	<ul style="list-style-type: none"> Control emissions and transfer of restricted chemicals, particularly xylene, ethylbenzene, and toluene (scope: 5 shipyards) 	45–46	

JFE Urban Development*

FY2010 Priority Environmental Targets	Evaluation
Promote energy-saving in condominium development business Acquire Housing Performance Evaluation Reports Utilize energy-conserving materials and facilities	<ul style="list-style-type: none"> Anti-degradation of structural frames: Grade 3 Energy efficiency: Grade 3 Formaldehyde emission control: Grade 3 A
Promote global warming countermeasures in facility management business	Renew energy-conserving equipment A
Reduce waste emissions in facility management business	Improve recycling rates for targeted commercial waste • THINK: Recycling rate of 81.6% • Orto Yokohama: Recycling rate of 49%

* JFE Urban Development Corporation was merged into JFE Steel in April 2011

Kawasaki Microelectronics*

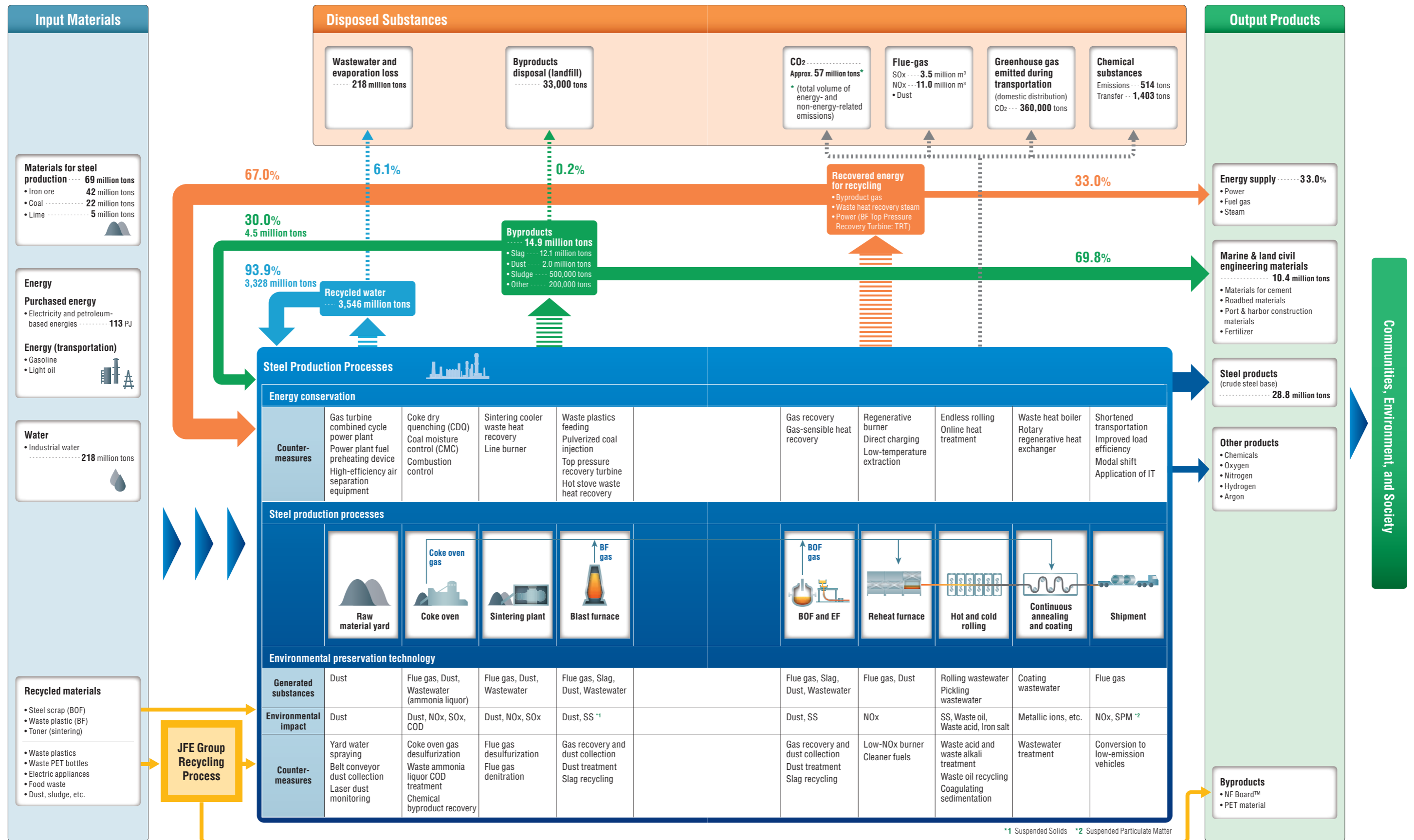
FY2010 Priority Environmental Targets	Evaluation
Pursue further environmental protection in the following areas: Global warming countermeasures in building operations Paper resources conservation Waste reduction (construction byproducts)	A

* Kawasaki Microelectronics became fabless in FY2009 and currently does not engage in manufacturing. As it accounts for an extremely small proportion of the JFE Group's environmental footprint, it has been removed from the CSR report from FY2011.

Reducing Environmental Load of JFE Steel Activities

Energy & Materials Flow in Steelmaking Process

JFE Steel continuously strives to reduce the levels of energy and materials used in the steelmaking process, resulting in the company's extensive recycling of energy, water, and materials. Plastics and other waste materials used in the process are also recycled in greater volumes than the resulting final waste.



Reducing Environmental Load of JFE Steel Activities

Steel Industry Initiatives to Curb Global Warming

Voluntary Action Plan

A total of 91 companies, including JFE Steel and other members of the Japan Iron and Steel Federation, have been defining their action plan on a voluntary basis and implementing diverse initiatives. The voluntary action plan is based on 1) energy-saving initiatives in the steel production process, 2) contribution to society through energy saving, and 3) developing innovative technologies. The initiatives have been advocated and deployed based on the targets shown on the right.

Results and Achievements

Total production of crude steel by the 91 companies came to 93.72 million tons in FY2009, or down 10.5% compared with FY1990, whereas energy consumption and CO₂ emissions decreased by 17.2% and 17.5% over the same period, enabling us to overachieve our

Goals and Targets based on JISF Voluntary Action Plan

- Assuming total crude steel production of 100 million tons, the federation plans to reduce energy consumption in FY2010 by 10% compared with FY1990 (baseline year), and corresponding CO₂ emissions will be reduced by 9%
- However, even if production exceeds 100 million tons, a maximum effort will be made, including leveraging Kyoto mechanisms, to attain the targets
- The above targets are annual average values for the five-year period of FY2008–FY2012

targets once again, as in FY2008.

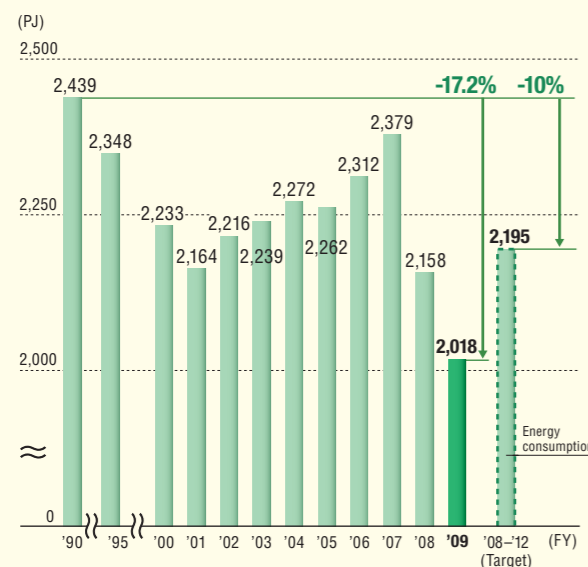
Decreased energy consumption was greatly influenced by decreased production, but per-unit energy consumption for each ton of crude steel decreased by 7.5% compared with FY1990, proving that our energy-saving activities were effective.

Crude steel production in Japan plummeted in the second half of FY2008, following the Lehman Brothers failure, and stayed in a downward trend until the first half of FY2009, which held production

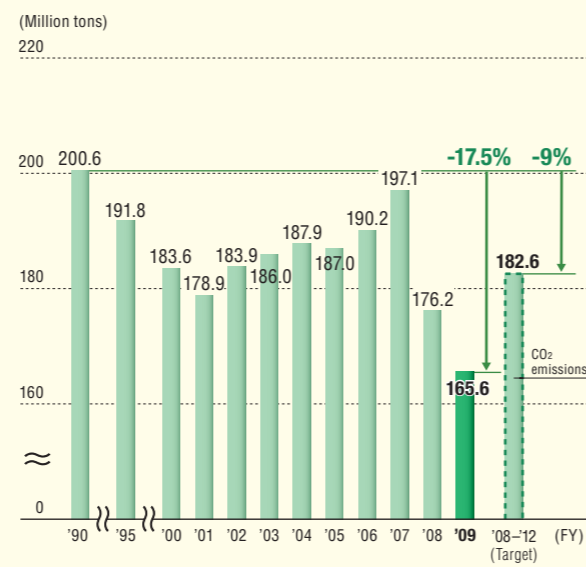
below 100 million tons in FY2009.

However, production rebounded to 110 million tons in FY2010. If volume remains above 100 million tons in the years going forward, it could be quite challenging for us to meet our five-year target for average energy-consumption reduction. Nevertheless, the steel industry will continue to implement energy-saving measures and leverage Kyoto mechanisms, implementing a maximum effort to achieve its goals.

Progress situation #1 Energy Consumption within JISF



Progress situation #2 CO₂ Emissions within JISF



Initiatives by JFE Steel to Curb Global Warming

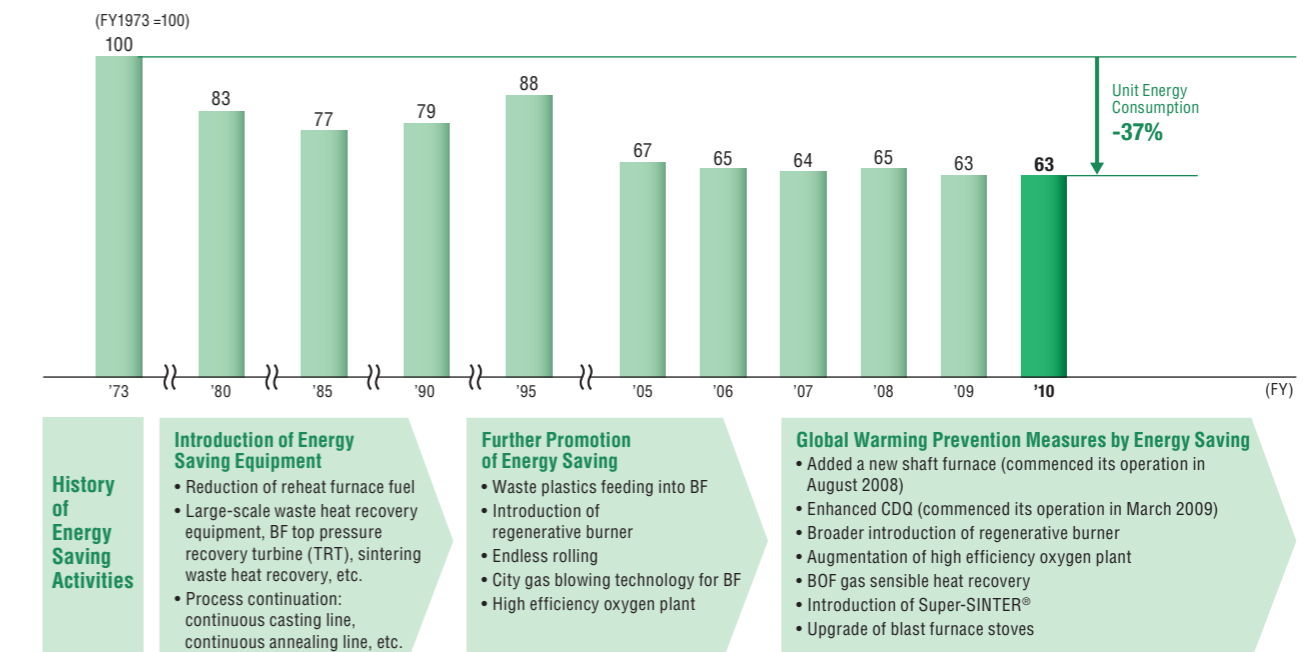
Energy-saving and CO₂ Reduction Initiatives through Steel Production Processes

JFE Steel's initiatives to save energy and reduce CO₂ through production process are in line with the voluntary action plan set forth by the Japan Iron and Steel Federation.

Initiatives to Save Energy and Reduce CO₂

JFE Steel was actively pursuing energy-saving initiatives (deployment of energy-saving equipment, etc.) long before the Japan Iron and Steel Federation introduced its voluntary action plan.

Transition of Unit Energy Consumption at JFE Steel



1973–1989 Introduction of energy-saving equipment

Steel production based on blast furnaces uses coke to reduce iron ore, which, along with other processes, results in CO₂ emissions. JFE Steel has been recycling by-product gases emitted from coke ovens and blast furnaces since the 1970s, using them as fuels and to generate power. The company also has engaged in the full-scale collection of flue gas and exhaust heat for industrial utilization, developed successive production processes,

and deployed related energy-saving devices. Based on such efforts, energy efficiency rose more than 20% between FY1973 and FY1990.

1990–2006 Further enhancements

Additional energy savings were realized in the 1990s by injecting waste plastics into blast furnaces and introducing regenerative burners and endless rolling, enabling JFE Steel to achieve one of the world's highest energy-efficiency levels for steel production.

2007– Initiatives to curb global warming

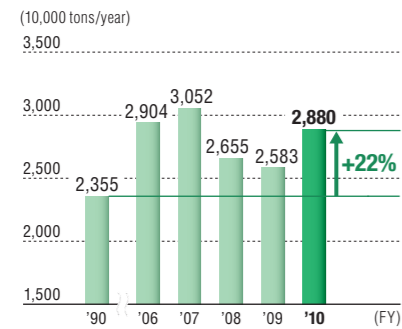
JFE Steel is working toward new energy savings based on the development and commercialization of Super-SINTER[®], the enhancement of CDQ, and the deployment of electric shaft furnaces. The aim is to achieve steel industry targets for global warming countermeasures based on voluntary action plan. Capital expenditure on energy-saving projects has been aggressive, amounting to around 416 billion JPY since 1990. Over the longer term, energy savings of about 37% have been attained since 1973.

Reducing Environmental Load of JFE Steel Activities

Energy-savings and CO₂ Emissions in FY2010

JFE Steel's production of crude steel came to 28.8 million tons in FY2010, up 22% and 11% from FY1990 and FY2009, respectively. Energy consumption rose year on year, but the unit rate of energy required

Production of Crude Steel



to produce one ton of crude steel improved by 0.2 point. While energy consumption in steel production processes is greatly influenced by production volume, we have focused on unit energy consumption as the metric to gauge our level of technological improvement. Per-unit energy consumption has continually improved irrespective of fluctuations in production volume, rising 21% since FY1990.

Rising crude steel production also led to increased CO₂ emissions year on year, but on the unit basis of one ton of crude steel emissions decreased by 0.04 point. Unit CO₂ emissions have been on a downward trend, just like unit energy consumption. Per-unit CO₂ reduction has improved by 22% since FY1990.

Toward further CO₂ Reductions

JFE Steel will continue to combat global warming by reducing its per-unit energy consumption and CO₂ emissions through further technological advancements, working in line with the voluntary action plan of the Japan Iron and Steel Federation.

New measures will be taken to improve operational efficiency at steelworks, and capital expenditure targeting energy savings and CO₂ reduction will be increased. Aiming to radically reduce CO₂ emissions in the future, the company will aggressively engage in research and development focused on innovative steel production processes and separation/collection of CO₂, ultimately to improve environmental processes over the long term.

Comprehensive Measures to Reduce CO₂

JFE Steel works to reduce CO₂ emissions through energy-saving and CO₂-reduction measures for steel production processes, as well as distribution, delivering high-performance steel products, and international collaboration for spreading energy-saving technology.

Energy Saving in Transportation

Emissions of CO₂ and NO_x (nitrogen oxide) caused by fuel consumed during the transportation of steel products are a major challenge. To reduce these emissions, the company is proactively working on a modal shift to switch to transportation methods with relatively smaller environmental footprints, including ship and rail, as well as promoting greater efficiency in the transportation of raw materials to Japan through the use of large-sized raw material carriers.

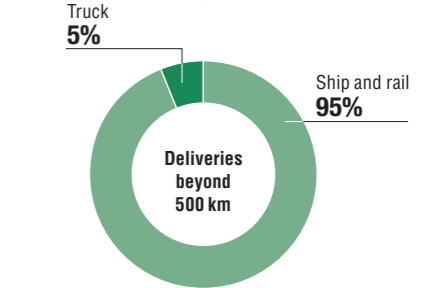
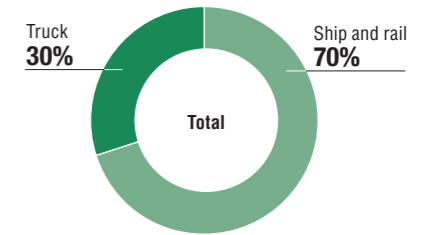
JFE Steel achieved a modal shift rate* of 95% in FY2010. The amount of CO₂ emissions for deliveries of steel products was approximately 360,000 tons.

Non-energy-related CO₂ Emissions

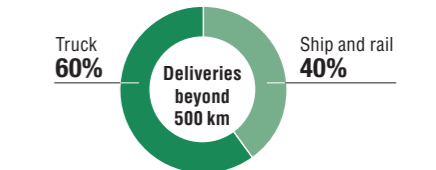
To remove iron ore impurities, lime and dolomite are added to blast furnaces and converters. CO₂ emissions from the breaking down of these materials, classified as non-energy-related, were approximately 1.71 million tons in FY2010. Such emissions, which account for about 3% of JFE Steel's total CO₂ emissions, were basically unchanged year on year in FY2010 despite the company's increased production of crude steel.

* Modal shift rate
Ratio of transportation volume exceeding 500 km (both rail and ship)

JFE Steel's Modal Shift Rate

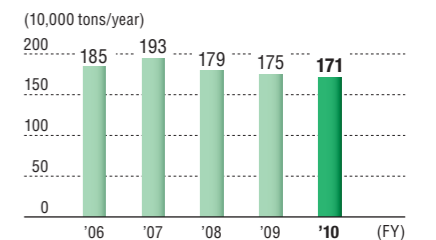


Total Modal Shift Rate in Industry



Source: Ministry of Land, Infrastructure, Transport and Tourism

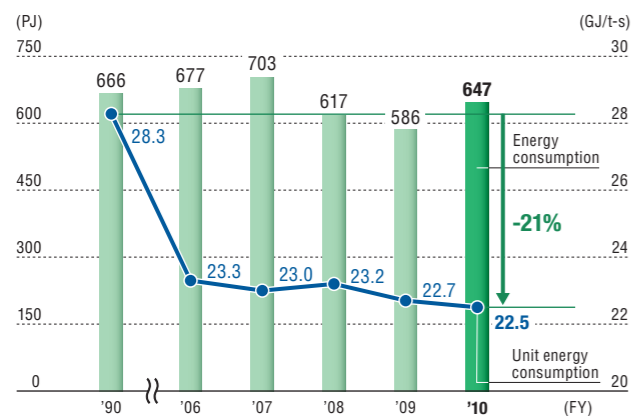
JFE Steel's Estimated Non-energy-related CO₂ Emissions



Unit energy consumption

Reduced 21%
since FY1990

Energy Consumption and Unit Energy Consumption



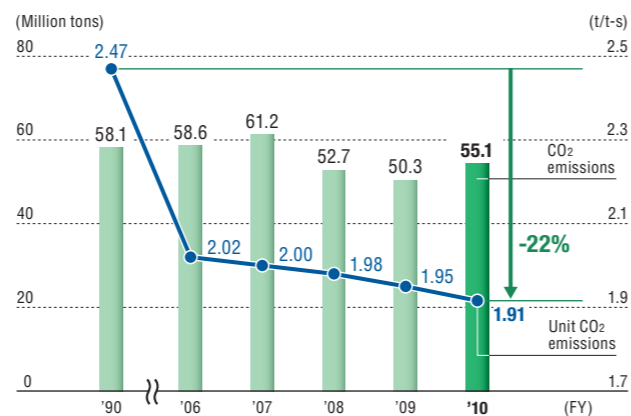
Changes in Energy Consumption, Unit Energy Consumption, and Crude Steel Production vs. FY1990 (%)

	'06	'07	'08	'09	'10
Consumption	2	6	-7	-12	-3
Unit Consumption	-18	-19	-18	-20	-21
Crude Steel Production	23	30	13	10	22

Unit CO₂ emissions

Reduced 22%
since FY1990

CO₂ Emissions and Unit CO₂ Emissions



Changes in CO₂ Emissions, Unit CO₂ Emissions, and Crude Steel Production vs. FY1990 (%)

	'06	'07	'08	'09	'10
CO ₂ Emissions	1	5	-9	-13	-5
Unit Consumption	-18	-19	-20	-21	-22
Crude Steel Production	23	30	13	10	22



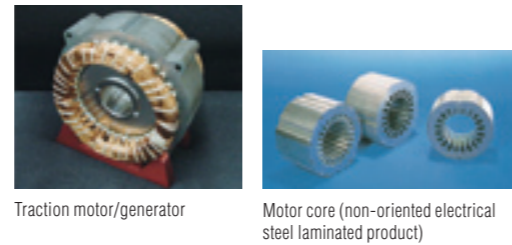
Reducing Environmental Load of JFE Steel Activities

Reducing CO₂ Emissions through Products

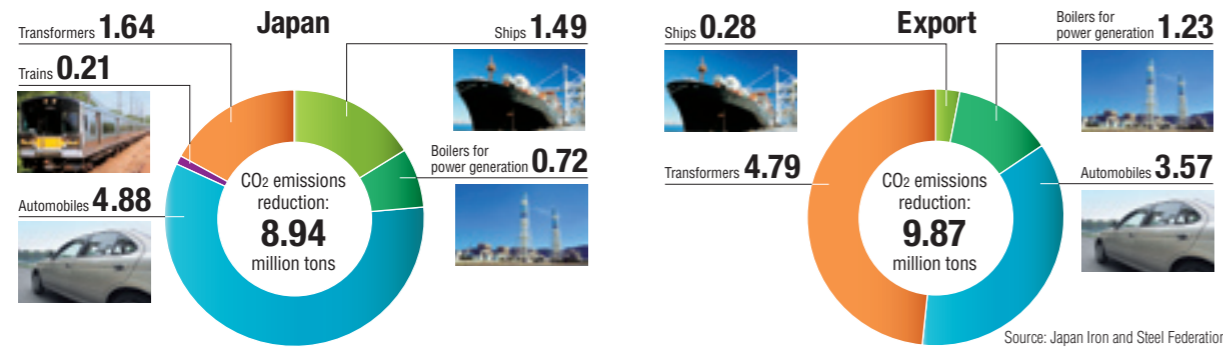
JFE Steel develops and supplies advanced materials that further economic development and promote the realization of low-carbon societies. As hybrid and electric vehicles gain greater acceptance, the company has been developing electrical steel sheets used for the electrification of vehicles. To support the production of small motors that deliver high output together with high efficiency and reliability, the company has introduced

specialized facilities ahead of its competitors and is a leader in the manufacture of high-grade electrical steel sheets that utilize battery power with extra efficiency. In addition, our high-efficiency non-oriented electrical steel sheets, which we have developed for hybrid and electric vehicles, are contributing to more fuel efficiency, higher output power,

and smaller motors than before. JFE Steel's highly functional steel sheets are helping to realize dramatically reduced CO₂ emissions from automobiles.



Reducing CO₂ Emissions through High-performance Steel Products (FY2009)



Global Warming Countermeasures

To help combat global warming worldwide, JFE Steel has transferred numerous technologies for environmental preservation, energy conservation, and CO₂ emissions reduction efforts in other countries, helping to make our world both prosperous and more environmentally friendly. In May 2010, California Steel Industries (CSI), a joint venture company we established with VALE, a Brazilian company, adopted the first regenerative burner for a large-sized reheat furnace in the U.S., deployed in its No. 5 reheat furnace,* resulting in a 20% improvement in

unit fuel consumption compared with conventional models. Going forward, JFE Steel will continue to implement global technology transfers in the effort to reduce greenhouse gas effects worldwide.

ogy transfers in the effort to reduce greenhouse gas effects worldwide.

* Used to heat steel slabs before processing into hot-rolled steel sheets at hot rolling mills



CSI's No. 5 reheat furnace

Environmentally Friendly Initiatives

Air Quality

Reducing Sulfur Oxide and Nitrogen Oxide Emissions

JFE Steel is working on the reduction of SO_x and NO_x emissions to harmonize operations with local communities. Efforts are focused on the deployment of desulfurization and denitration devices for flue gas created by sintering. The emission volume for these substances has been greatly reduced since 1973, and the downward trend is expected to continue as a result of further efforts going forward.

Reducing Smoke and Dust

Smoke and dust can make living close to steelworks uncomfortable, so the company is working to continually reduce these substances on behalf of local residents. Practical measures include the cleaning of facilities, spraying water on dust sources (raw material yards, etc.), and deploying anti-dust nets. We also strive to reduce airborne dust through various measures carried out daily.

Water Contamination and Water Recycling

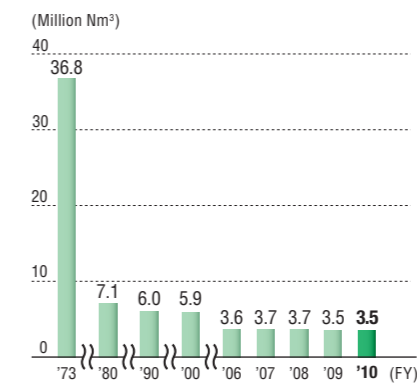
Since the steelmaking process requires great amounts of water, JFE



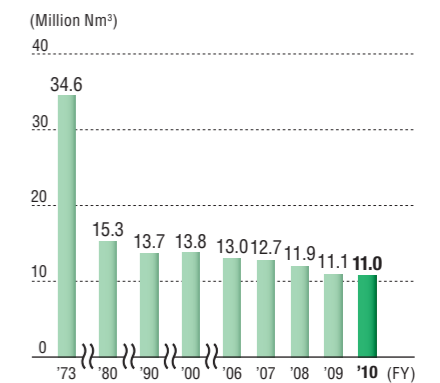
Wastewater treatment: Denitrification equipment at East Japan Works (Chiba Area)

Steel uses biological and chemical processes to purify the water used in its facilities. At present the company's water recycling ratio has risen to 94%. Water drained into public waterways goes through a full-scale water purification process to ensure a low environmental footprint. The company's chemical oxygen demand (COD) was 3.1 tons per day in FY2010, which helped to ensure that water quality was maintained at the same level as in the previous fiscal year.

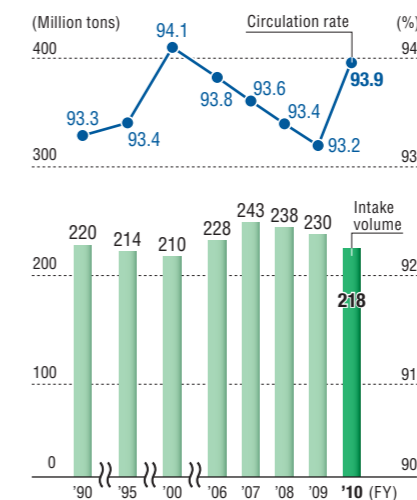
SO_x Emissions



NO_x Emissions

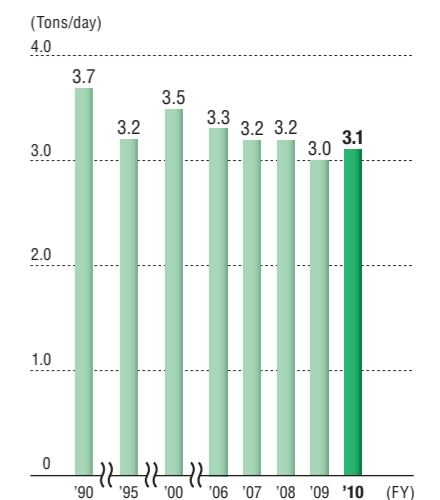


Industrial Water Intake and Circulation



Exhaust gas treatment for sintering machine: Activated coke method at West Japan Works (Fukuyama Area)

COD (Chemical Oxygen Demand)



Reducing Environmental Load of JFE Steel Activities

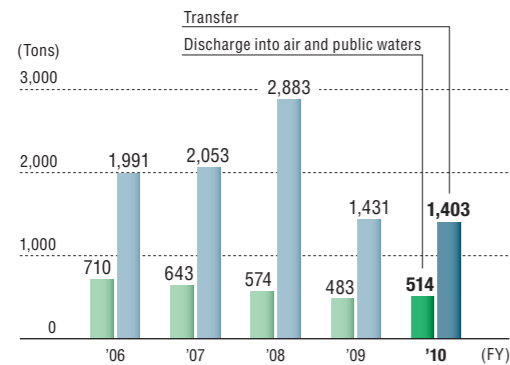
Control and Containment of Chemical Substances

JFE Steel conducts a voluntarily discharge reduction program, placing the highest priority on chemical substances with the greatest toxicity and largest discharge volumes. Discharges of dioxin and related substances were reduced by 1.4 grams TEQ to 3.4 grams TEQ from the previous fiscal year. Benzene discharge was cut by around 1.1 tons to 23.9 tons.

Total transfer (including on-premise landfill and off-premise transfer) and discharge (including release into the air and public waterways) was maintained at the previous fiscal year's level despite increased production of crude steel.

JFE Steel will continue its voluntary efforts to reduce its release of chemical substances and thereby lower its environmental impact on air and public water resources.

Discharge and Transfer of Chemical Substances



PCB Waste Processing

JFE Steel's PCB (polychlorinated biphenyl) equipment is stored, transported, and processed in full compliance with Japan's PCB Special Measures Law.

JFE Steel completed the early registration of its large-sized PCB equipment with the Japan Environmental Safety Corporation (JESCO) in 2005, and since then has been carrying out disposals one by one in accordance with instructions from JESCO.

The status of disposal varies by region. So far, no problem has been encountered with storage or transportation, which have been carried out appropriately together with disposals. Further work will be handled in a similar manner, in accordance with JESCO directives.

For equipment containing trace amounts of PCB, rules for analyzing the insulating oil are set as part of the disposal process. If PCB is detected at the time of disposal, substances are properly stored.

Environmental Surveillance

To ensure the prevention of environmental abnormalities, JFE Steel constantly monitors air- and water-quality loads through various methods, including periodic batch analyses, continuous analyses with automatic analyzers, and industrial television-based remote monitoring. We operate a system for automatically disseminating information about abnormalities through mobile phones, allowing us to quickly address any problem. In FY2010, no environmental anomaly was detected by our environmental monitoring mechanisms and other measures.



Remote surveillance of environmental data (Keihin Area)



Warehouse of PCB equipment and its equipment storage status West Japan Works (Fukuyama Area)

Reduced Production and Emission of Byproducts

Using Byproducts and Reducing their Production/Emission

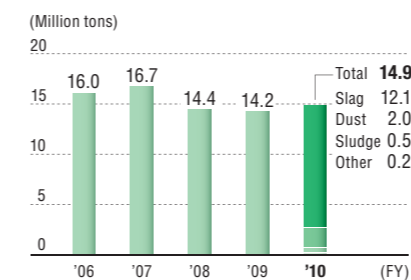
Steelworks managed by JFE Steel mainly produce iron-steel slag (a steelmaking byproduct), iron dust emitted by blast furnaces and converters, and sludge created by rolling or included in waste water. Efforts to reduce each of these substances are being pursued through optimization of steelmaking and water-disposal processes.

Dust and sludge, with a high iron content, are recycled as raw materials for steelmaking, helping to reduce the final amount that must be disposed.

In FY2010, dust-refining furnaces (operative in the Fukuyama area since FY2009) and roasters (operative in the Kurashiki area since FY2008) continued to convert dust and sludge into raw materials. In addition, further work was carried out on technology to utilize iron-steel slag for marine applications. Such efforts culminated in a 99.8% dust/sludge recycling ratio for raw materials production in FY2010.

Going forward, we intend to further enhance our technologies for the conversion of dust and sludge into useful raw materials.

Byproducts Produced through Manufacturing



Iron-steel Slag for Industrial Uses

JFE Steel uses all of its iron-steel slag for industrial purposes, predominantly construction and the creation of cement. More recently, the company began also using it for environmental purposes, such as the rehabilitation of marine areas.

Marine Rocks (solidified hydrated iron-steel slag)

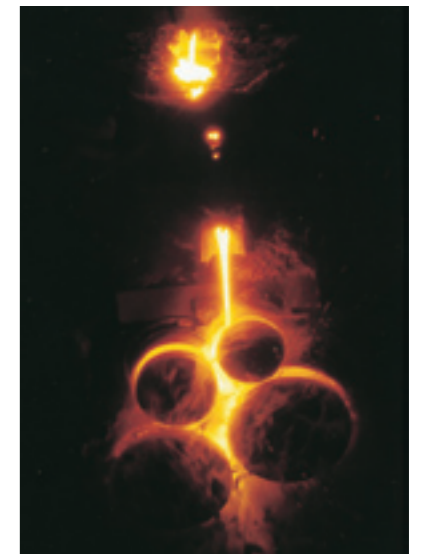
Marine Rocks are artificial rocks, made of iron-steel slag, that are similar to semi-hard stone. As a recyclable material, they support resource conservation by substituting for non-renewable natural stone. Land and marine applications include seaport and airport civil engineering projects, coastal protection structures, seaweed bed rehabilitation and land surface coverage. Marine Rocks were used as the materials to develop seaweed nurseries in the Japanese TV program, "The Tetsuwan Dash!!"



Marine Rocks used for seaport repair work

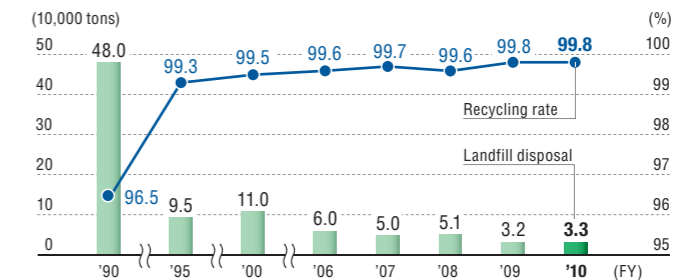
Rock Wool

Rock Wool, an insulation material for houses, is mainly made of molten blast furnace slag that has been blown away by high-speed rollers and turned into fibers after preparation. Rock wool is an inorganic material that resembles natural materials in terms of its makeup and properties. In addition to providing efficient heat insulation, it is nonflammable, resistant to chemical substances such as acid and alkali, is not deteriorated by ultraviolet light, and does not contain harmful chemicals such as blowing agents. As a steelmaking byproduct, it is a highly useful resource-recycling product.



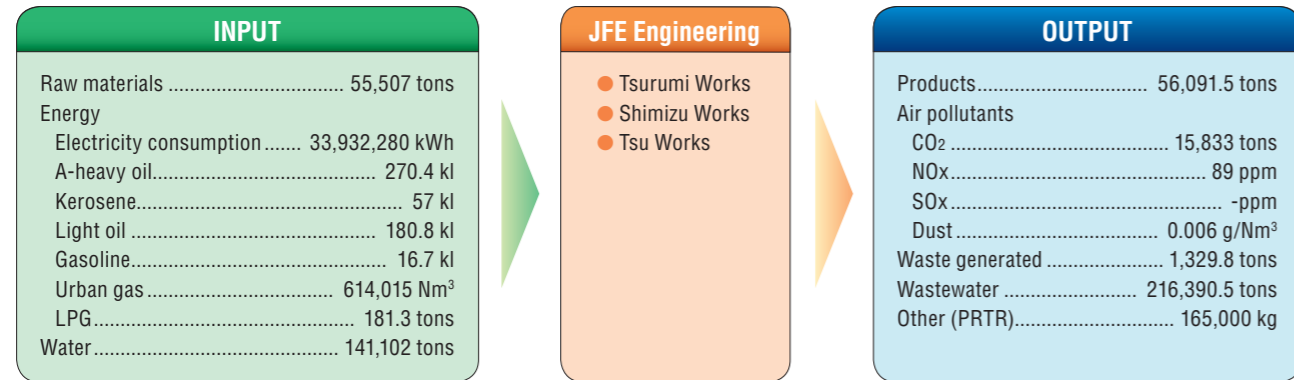
Spinner processing fibers

Landfill Disposal and Recycling Rate of Byproducts



Reducing Environmental Load of JFE Engineering Activities

Materials Balance in FY2010



Global Warming Countermeasures

In 1997, the Japan Society of Industrial Machinery Manufacturers, of which JFE Engineering is a member, introduced a voluntary action plan on the environment to cut CO₂ emissions by 12.2% relative to FY1997 levels by the end of FY2010 (to be achieved as an annual average in FY2008–FY2012).

To achieve these goals, JFE Engineering made efforts to reduce

its consumption of electricity and gas for cutting and welding, and to make more efficient use of compressed air at plants. And it tried to actively lower energy use in offices by using clathrate hydrate slurry (CHS) heat storage air conditioning systems, and turning off lights during break times. In FY2010, total office and plant CO₂ emissions came to 15,800 tons, down 3.1% year on

year and 16.0% below the FY1997 level. Average CO₂ emissions in FY2008–FY2010 totaled 16,300 tons.

Measures to use renewable energy sources included completion in FY2010 of a large photovoltaic power generation system of 50 kW and a 6 kW sun tracking photovoltaic power generation system at the Tsurumi Works.

Environmental Preservation

Air Quality

To comply with both the national Air Pollution Control Law and local regulations, the Tsurumi and Tsu works, where soot and smoke emitting facilities regulated by Air Pollution Control Law are established, have set voluntary emissions standards and regularly measure the nitrogen oxide emissions from their systems. Emissions measurements of all systems at both plants, which were below the regulated levels, will continue to be carried out going forward.

The company does not own any facility that discharges general

particulate, such as benzene, trichloroethylene, and tetrachloroethylene, as specified by the Air Pollution Control Law.

Water Quality

To comply with regulations controlling the discharge of water pollutants, each plant sets voluntary standards and regularly measures water quality. The results have shown that discharged pollutants are below regulation levels, and the company will continue to monitor water quality to ensure consistent satisfaction of all regulations.

Chemical Substances

In compliance with the Pollutant Release and Transfer Register (PRTR) Law, JFE Engineering controls its discharge and transfer of designated chemical substances and reports the figures to the national government through local bodies. The company will not only ensure compliance with all laws and regulations, but also will continue to pursue measures to further reduce its chemical discharges.

Dioxin

JFE Engineering does not own any specified facility requiring procedures as specified by the Law Concerning Special Measures against Dioxins.

PCB Waste

PCB (polychlorinated biphenyl) wastes are managed and stored appropriately at each plant and status reports are submitted annually to local authorities in accordance with

the PCB Special Measures Law. Treatment of PCB waste is carried out in accordance with the schedule laid down by Japan Environment Safety Corporation (JESCO).

Recycling

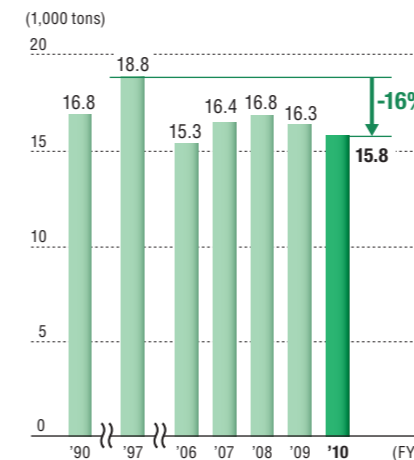
JFE Engineering has been making every effort to reduce and recycle industrial wastes in the ways in which it separates and recycles wastes at construction sites and plants.

In offices, waste separation rules are being clarified and inspections are being carried out

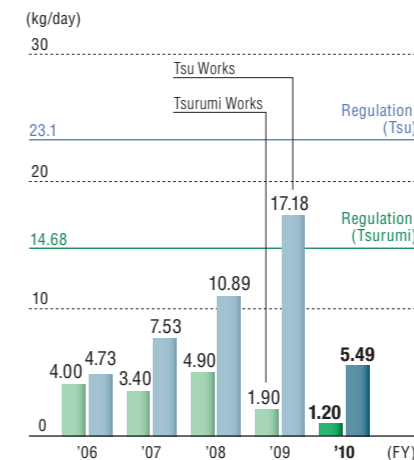
to ensure compliance. Company construction sites, plants and offices have recycling rate targets that are reviewed each year. Recycling rates in FY2010 included rubble: 99.9% (versus a 99.5% target), sludge: 97.1% (75.0%), and other industrial wastes: 83.0% (80.0%).

JFE Engineering's planning and design divisions also make efforts to ease environmental loads, setting targets to incorporate more recycled materials, to use more energy-efficient equipment, and to take other steps.

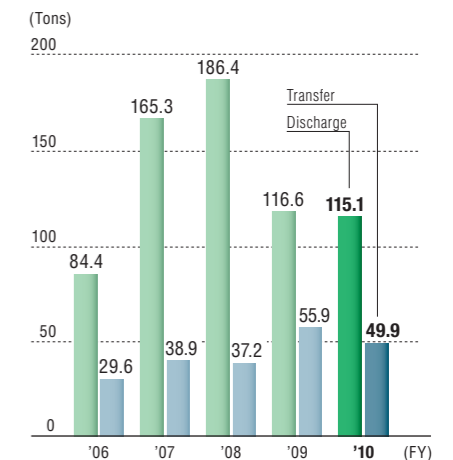
CO₂ Emissions



Changes in Chemical Oxygen Demand



Discharge and Transfer of Substances Reported under PRTR



Waste Reduction (FY2010)

Category	2010 Target (%)	2010 Actual (%)
Rubble	99.5	99.9
Sludge	75.0	97.1
Industrial wastes, excluding rubble and sludge	80.0	83.0

Location	2010 Target (%)	2010 Actual (%)
Tsurumi Works	98.0	98.8
Tsu Works	83.0	84.9
Shimizu Works	97.6	99.2

Location	2010 Target (%)	2010 Actual (%)
Tsurumi Works	54.0	53.0
Tsu Works	25.0	30.2
Shimizu Works	17.0	26.4

Reducing Environmental Load through Products and Technologies

The Power of Engineering

JFE Engineering works to reduce environmental load as well as contribute to the advancement of societies through a wide variety of fields, including energy (spanning the entire range of activities from the construction and maintenance of pipelines and LNG depots to the energy production), urban environment (where we devote our full efforts to improving the infrastructure for daily life, including waste treatment, water treatment, etc.), recycling (where

we are constantly contributing to the formation of a recycling-oriented society with the world's most innovative technologies), steel structures (where we are working to improve the convenience of residents with bridges and steel structures for buildings), and industrial machinery (making full use of technologies for material handling, from gigantic cranes to market systems). In the Green Project Sector, a new division established in April 2011, the com-

pany is expanding its technologies for renewable energy and CO₂ emissions reduction, such as "Rapidas" electric vehicle rapid chargers, solar thermal power plants, and geothermal energy utilization systems.
JFE Engineering, aiming to be a comprehensive engineering company demonstrating leadership in each of its business fields, will continue to pursue cutting-edge technologies through robust research and development.

Products/Technologies Example 1 Geothermal Binary Power Plant

Alliance with U.S. Partner to Generate Electricity from Low-temperature Steam

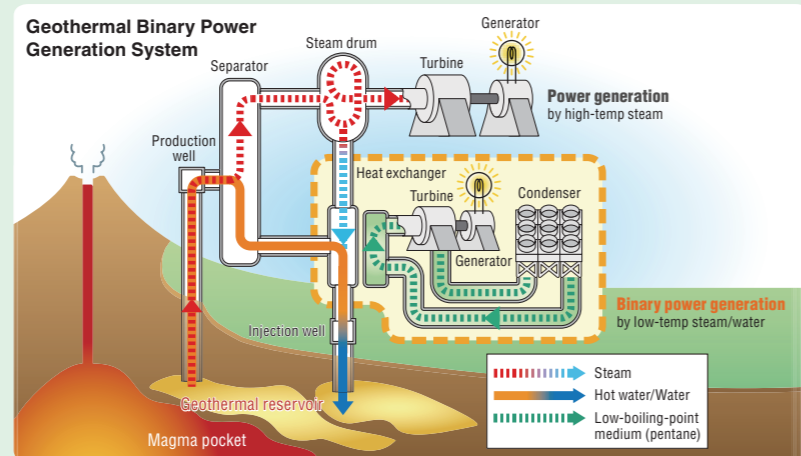
JFE Engineering and Ormat International, Inc. of the United States formed in June 2010 a business alliance to construct a facility in Japan involving geothermal binary power plants, which use a special heating medium to generate electricity from steam or hot water at relatively low temperatures of around 100°C or over.

Traditional flash-type plant systems require steam at 200°C or more, but geothermal binary power generation can use lower temperatures, including from geothermal energy in locations where power-generation systems normally are difficult to develop. Combining binary-power and conventional systems can improve generation efficiency by a wide margin.

Given the potential of geothermal binary power generation to help reduce CO₂ emissions, JFE Engineering intends to develop solutions based on this method to contribute to the realization of more sustainable societies.



125 MW binary power system of Ormat International, Inc. Mokai Geothermal Power Plant (New Zealand)



Products/Technologies Example 2 "Cycle Tree": Multi-level Mechanical Bicycle Parking System

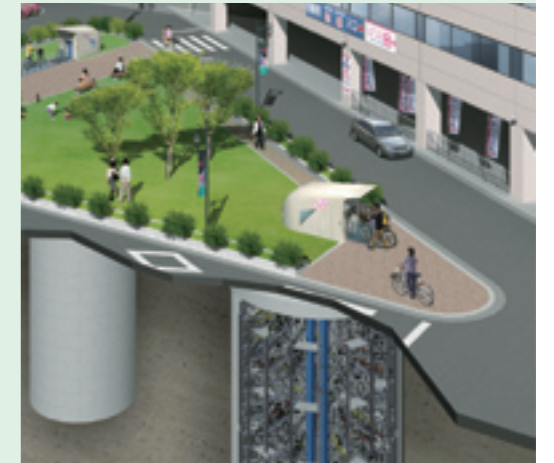
Promoting Bicycles for Low-carbon Societies

CYCLE TREE is a fully automatic multi-level bicycle parking system that makes it possible to quickly park bicycles in confined areas, such as in front of train stations where space is typically limited.

Bicycles provide eco-friendly transportation because they do not emit CO₂, but the disorganized parking of large numbers of bicycles near train stations can become a problem in urban areas. JFE Engineering's CYCLE TREE system, however, makes use of limited space in a highly effective manner to solve this problem.

The Kasai Station bicycle park-

ing lot of Tokyo's Edogawa Ward, which opened in 2008, has 36 underground mechanical CYCLE TREES, each capable of storing 180 bicycles for a total of 6,480 bicycles. It is one of the world's largest parking lots of its kind. In another location, Japan's first horizontal mechanical CYCLE TREE was slated to open in October 2011, coinciding with a renewal project around Sagami-ono Station. The system — a variation of traditional overground and underground cylindrical systems — allows



CYCLE TREE multi-level mechanical bicycle parking system

developers to choose configurations that match their specific requirements and thereby promote the use of emissions-free bicycles.

Research and Development Example Energy from Sewage

"KARITTO" Sewage Sludge Dryer with Surface Solidified Processing

A huge volume of sewage sludge collected at sewage treatment plants is recycled as raw material for cement. Solid fuel made from unburned combustibles contained in sludge has attracted interest as a fuel, but the removal of intense odors been a major stum-

bling block.

"KARITTO," developed by JFE Engineering, is a machine for making odor-suppressed solid fuel from sewage sludge. The surface of sewage sludge dumped into "KARITTO" is solidified with air of 200°C on the first conveyor belt to contain

the odor. The sludge is dehydrated on the second tier conveyor belt for processing as solid fuel that can be easily transported or stored. The drying temperature is relatively low and the waste heat can also be utilized. "KARITTO" can product fuel efficiently from sewage sludge.

"KARITTO" Surface-solidifying Sludge Drying System

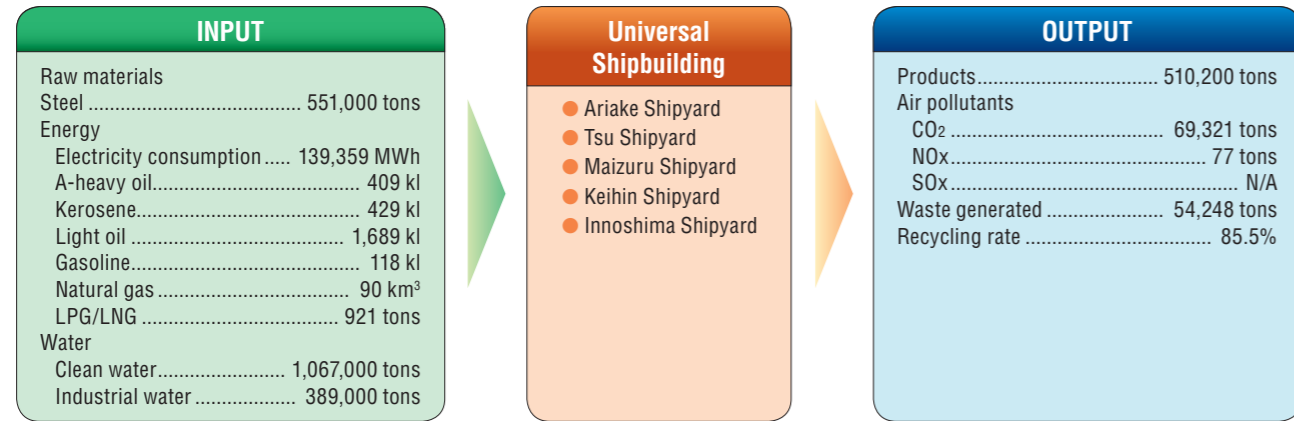


Takashi Noto
Development and Planning Department
Research Center of Engineering Innovation

Shigenori Matsumoto
Development and Planning Department
Research Center of Engineering Innovation

Reducing Environmental Load of Universal Shipbuilding Activities

Materials Balance in FY2010



Global Warming Countermeasures

A breakdown of CO₂ emissions by energy type over the past several years shows that 86% are associated with electricity usage, 10% with petroleum usage, and 4% with gas usage. For Universal Shipbuilding, this means that its most pressing concern is to lower electricity consumption, the greatest source of CO₂ emissions.

The company's production divisions are taking steps such as turning off lights during lunch hours,

reducing electricity consumed by welding equipment on stand-by, and replacing electrical equipment with more energy-conserving options. Office divisions are implementing activities such as turning off lights during lunch hours, turning off computers when not in use, and adjusting thermostats to use air conditioners and heaters less.

Total electricity consumption by these divisions in FY2010 came to 139,359 MWh, or 1,329 MWh more

than in the previous year, which was due to increased production amounting to approximately 26,000 tons. Electricity consumption per work hour (MWh/1,000 hours), however, declined on a year-to-year basis.

Other activities to reduce CO₂ emissions include turning off idling engines and shutting off gas mains when jobs are completed to reduce petroleum and gas wastage.

Environmental Preservation

Air Quality

To comply with both the national Air Pollution Control Law and local regulations, each of our offices and plants has set voluntary standards regarding equipment designated for regulation and regularly measures the emissions of particulate matter, sulfur oxide, and nitrogen oxide from their equipment.

Measurements of such emissions, which are consistently below the regulated levels, will continue to be carried out going forward.

Water Quality

To comply with regulations controlling the discharge of water pollutants, each plant sets voluntary standards and regularly measures water quality. The measurements, which have shown that discharged pollutants are below regulation levels, will continue to be carried out going forward.

Chemical Substances

In compliance with the Pollutant Release and Transfer Register (PRTR) Law, Universal Shipbuilding controls

its discharge and transfer volumes of designated chemical substances and reports the figures to the national government through local bodies.

As a shipbuilder, the company pays particular attention to monitoring its discharge and transfer of three key substances used in painting — ethylbenzene, xylene, and toluene.

Furthermore, the company does not own any type of facility requiring extraordinary procedures as specified by the Law on Special Measures against Dioxins.

PCB Waste

PCB (polychlorinated biphenyl) wastes are managed and stored appropriately at each plant and status reports are submitted annually to local authorities in accordance with the Special Measures Law regulating PCB wastes. We also began PCB detoxifying treatment at Japan Environment Safety Corporation (JESCO) in FY2010.

For wastes containing trace quantities of PCBs, a list of target machinery introduced in FY2002 was revised in FY2010.

Volatile Organic Compounds

We carry out measurements twice annually to ensure our Ariake and Tsu works, both of which have coating facilities, do not exceed the emissions standard of 700 ppmC as specified under volatile organic compound regulations of the revised Air Pollution Control Law. Measurements have consistently remained below regulated levels.

The company is looking into new coating processes to reduce the rate of paint loss and is using low-VOC paints throughout the business.

In the meantime, Universal

Shipbuilding will continue complying with all regulations for volatile organic compounds.

Zero Fuel Leaks Campaign

Universal Shipbuilding conducts regular training to prevent accidents leading to fuel leaks, a potentially significant source of marine pollution. Training covers how to deal with oil spills, including communications, chains of command, and guidelines for treating spillage. The training also aims to identify and revise any possible shortfall in countermeasures and related response systems.

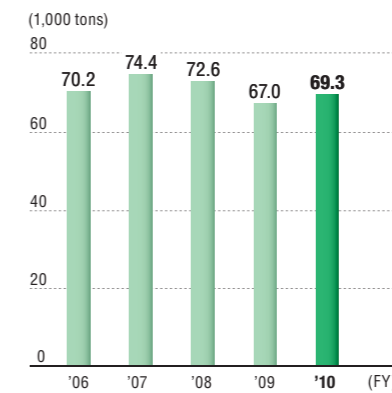
While the company is pleased to report that no accident leading to oil spillage occurred in FY2010, regular training and review will continue to be carried out to heighten awareness of the possibility of accidents.

Reducing Waste Generation and Discharge

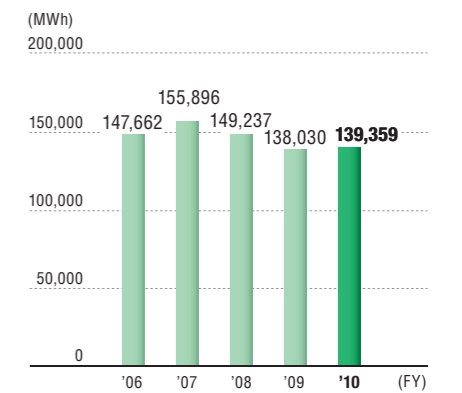
The company's production divisions have increased their use of garbage receptacles for separated waste and are monitoring to ensure compliance, and are taking other steps to ensure that garbage is properly separated, reused, or recycled. Office divisions are reusing waste-paper and thoroughly separating garbage in a bid to dispose less and recycle more.

Total waste discharge of production and office divisions in FY2010 came to 54,248 tons, which was 1,368 tons more than in the previous year due to increased production. The recycling rate improved, however, to 85.5% from 84.7% on a year-on-year basis.

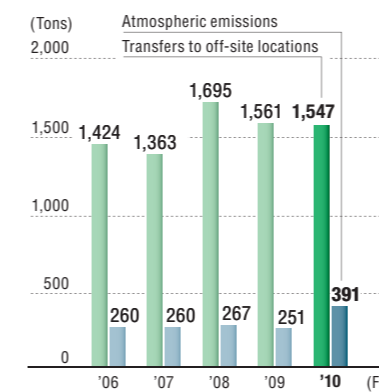
CO₂ Emissions



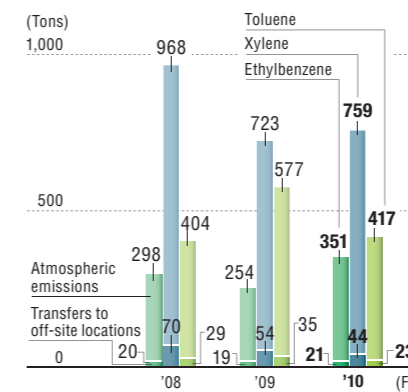
Power Consumption



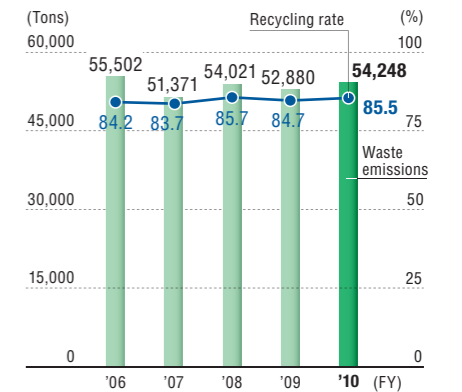
Chemical Substance Discharge and Transfer



Three Key Substances



Waste Disposal



Reducing Environmental Load through Products and Technologies

Reducing Greenhouse Gas Emissions through Eco-ships

In response to discussions held at the International Maritime Organization regarding the limitation and reduction of greenhouse gas (GHG) emissions from international shipping, Universal Shipbuilding has begun developing eco-ships. In July 2011, the company completed construction of its first next-generation

“G-Series” ship, a 209,000 DWT type large bulk carrier that emits 25% less GHG than conventional ships (200,000 DWT type bulk carriers).

Focusing mainly on reducing drag and horsepower through improved hull performance, engine plant efficiency, and on-water perfor-

mance, these bulk carriers can save 10 tons of fuel per day compared to conventional ships.

In addition to further development of these technologies, their use is expected to be applied to other types of ships, such as tankers.

Products/Technologies Example 1 Reducing Fuel Costs for Ships

Hybrid Turbocharger Power Supply System

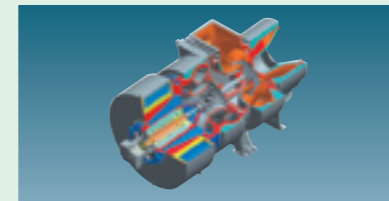
- POINT**
- Generates electricity during navigation and reduces fuel consumption
 - Available for small ships

A hybrid turbocharger* is a turbocharger with a small, high-speed generator for use in marine diesel engines. Universal Shipbuilding, working in collaboration with a partner company, developed a power supply system for these turbochargers that enables the production of electric power without running the ship's diesel generator to reduce both fuel consumption and costs. Compared to turbo compound systems, which recover waste heat through an exhaust gas boiler to drive a steam turbine

and/or partially recover exhaust gas energy and feed it to a turbine to drive an electric generator, a hybrid turbocharger requires less space and can be installed on relatively small ships, where generating systems that take advantage of engine exhaust had been difficult to use. Universal Shipbuilding's system was installed on a Nippon Yusen bulk carrier, the “Shinko,” which was launched in May 2010 to ship iron ore from Australia and other places. Verification of its energy-saving performance is being

subsidized by the Ministry of Land, Infrastructure, Transport and Tourism, and Nippon Kaiji Kyokai.

* **Turbocharger**
Device that feeds compressed air into an engine



Cross-section of hybrid supercharger (Source: Mitsubishi Heavy Industries)

Products/Technologies Example 2 Maritime Navigation Support System

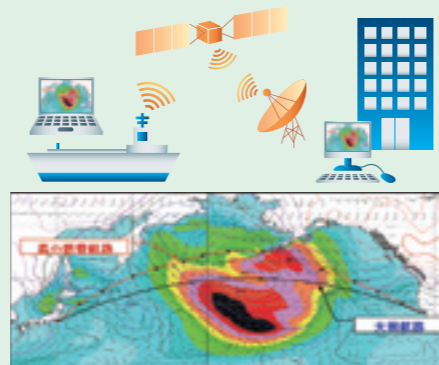
Sea-Navi®

- POINT**
- Optimizes ship navigation to reduce fuel consumption
 - Recommends optimum routes based on weather
 - Monitors navigation data

Sea-Navi®, a voyage support system that takes its name from car navigation systems, helps to optimize shipping routes for reduced fuel consumption. Before leaving port, the system provides the overall best route plan in terms of fuel consumption, timing, and safety. During naviga-

tion, the system can adjust the plan depending on changing conditions and then transmit navigational data back to headquarters for confirmation of the ship's status.

It also displays hull structure fatigue data and recommends maintenance.



Research and Development Example 1 Energy-saving Devices for Ships

Universal Shipbuilding equips nearly all of the ships it builds with the energy-saving devices SSD (Super Stream Duct) and SURF-BULB (Sweptback Up-thrusting Rudder Fin with BULB) to reduce greenhouse gas emissions and improve operational efficiency.

SSDs are installed in front of screws to recover the energy from vortices created when ships move forward and then uses that energy as thrust. SSDs also create a more organized flow of water into screws to help them work more efficiently. SURF-BULBs are installed on rudders to reduce resistance.

Measurements have shown that installation of both devices improves propulsion efficiency by 6%–13%. A 10% improvement in propulsion efficiency for a VLCC (Very Large Crude Oil Carrier) at sea 300 days a year, for example, would reduce CO₂ emissions by approximately 9,000 tons.



SSD and SURF-BULB, energy-saving devices, installed on a ship



Seiji Masuda
Hydrodynamics Engineering Lab Technical Research Center

Research and Development Example 2 Performance-enhancing Bow Shapes for Improved On-water Performance

“Ax-Bow” Vessel Shapes for Improving Actual Performance on the Water

LEADGE-Bow and Ax-Bow are new bow shapes that enhance the performance of ships at sea. Created through more than 10 years of advanced research and development, they lower the effects waves have on speed and fuel consumption, thereby

helping to reduce greenhouse gas emissions.

LEADGE-Bow and Ax-Bow, which have won high praise from ship owners, have been adopted for over 100 ships worldwide.



Koichiro Matsumoto
Research and Development



LEADGE-Bow bulk carrier



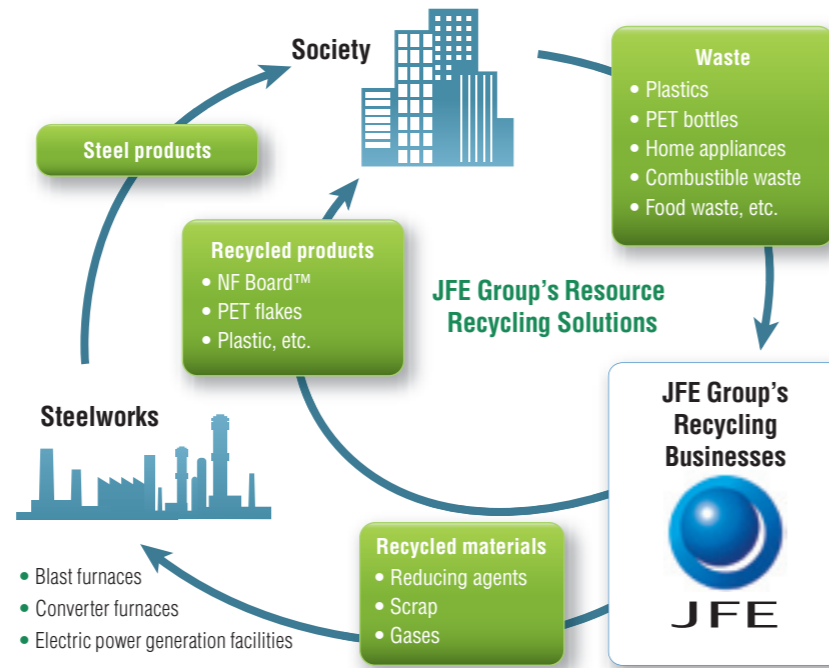
Ore carrier designed with Ax-Bow

Recycling Technologies for Sustainable Societies

JFE Group's Resource Recycling Solutions

The JFE Group is involved in a number of recycling businesses based on the group's utilization of steelworks recycling technologies and infrastructure, such as use of plastics in blast furnaces. In the engineering field, the group has developed recycling businesses related closely to local communities, such as the sorting and storage of waste plastics and the conversion of refuse into solid fuel.

JFE is contributing to the establishment of sustainable societies by offering solutions for disposal according to the type of waste, including mechanicals, chemicals and thermal recycling, aiming to minimize the amount of final disposal.



JFE Group's Recycling Businesses

JFE Group's Recycling Businesses

- 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 for blast-furnace
 - RPF manufacturing plant
 - Fluorescent tube recycling plant
 - Kiln type incinerator
 - Leachate controlled landfill
 - Refuse-derived fuel (RDF) gasifying power generation plant (in operation)

- Sendai**
 - Plastic packaging waste sorting and baling plant
 - Plastic material recycling plant
 - Fluorescent tube recycling plant
 - Recycled pallet manufacturing plant

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

- Chiba**
 - Waste gasifying and melting furnace
 - Food waste recycling plant
 - Solid waste recycling plant
 - Non leachate controlled landfill

- Kawasaki**
 - Waste plastic recycling plant for blast-furnace
 - Waste PET bottle recycling plant
 - Can and PET bottle sorting and baling plant
 - Kiln-stoker type incinerator
 - Solid waste recycling plant
 - NF Board™ manufacturing plant
 - Consumer appliance/OA recycling plant
 - Mixed waste disposal plant

Containers and packaging plastic (other plastics) in FY2011
110,000 tons

Discarded fluorescent tubes processed in FY2010

20 million tubes

Discarded consumer appliances processed in FY2010

1.67 million units

Case Example 1 Recycled Plastic Boards (JFE Steel)

JFE Steel recycles plastic containers and packaging that have been sorted and collected as general household garbage.

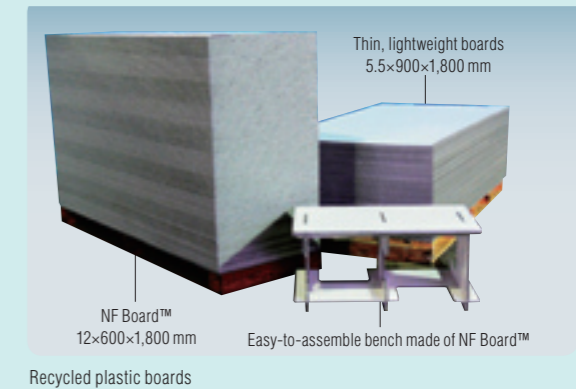
One of the recycled products created in this business is the NF Board™ for use as concrete forming molds. Since their introduction in 2002, over 2 million 12 mm-thick NF Boards have been used at construction sites in place of veneer molds. As

NF Boards are much more durable than conventional veneer molds and can be used many more times, thereby reducing CO₂ emissions by about 45%. In addition, by eliminating the need to cut trees, they help to protect rainforests.

The product was awarded in 2009 as a "Low CO₂ Kawasaki Pilot Brand." JFE Steel has steadily reduced the thickness and weight of NF Boards, introducing a 5.5 mm version in 2008 and then a 3 mm version in

2010. These extra thin and lightweight boards are now also being used as a bulletin board for posters and a protective covering for steel products such as coils at steelworks. Other applications also are being developed.

Reduced 45% in CO₂ emissions



Case Example 2 Industrial Waste Incineration for Sustainable Societies (JFE Engineering)

The JFE Engineering Group's JFE KANKYO Corporation built an industrial waste incineration facility, Yokohama Eco-Clean, in Yokohama and started operating it in July 2011.

The facility's incineration system, which is based on the kiln-stoker system^{*1}, has a capacity of 200 tons per day. Exhaust-gas analyzers installed on both sides of bag filters ensure that HCl, SO_x and NO_x remain below regulated levels. A kiln type ash melting furnace^{*2} is used to melt ash left after incineration and slag is

recycled as base course material. In addition, thermal energy generated during incineration is converted into electric power via a steam turbine.

Through these state-of-the-art

recycling technologies, Yokohama Eco-Clean is contributing to more sustainable societies.



^{*1} The kiln-stoker system uses a rotary kiln furnace to stir and incinerate refuse and a stoker furnace that makes refuse more combustible by pumping air from underneath. The method can dispose of most industrial waste.

^{*2} The kiln type ash melting furnace melts and solidifies ash from incinerators to reduce ash volume. A kiln furnace can be integrated with an incinerator to save energy.

Incineration capacity
200 tons/day

Environmental Management

JFE Group Framework for Environmental Management

Under the JFE Group CSR Council, the JFE Group Environmental Committee chaired by the president of JFE Holdings manages environment-related issues, such as setting objectives for environmental protection, monitoring progress, and improving environmental performance for the whole Group. There also is an Environmental Committee in each Group operating company and affiliated company.

JFE Steel has established an Environment Management Department at the head office and in each business office to oversee related is-

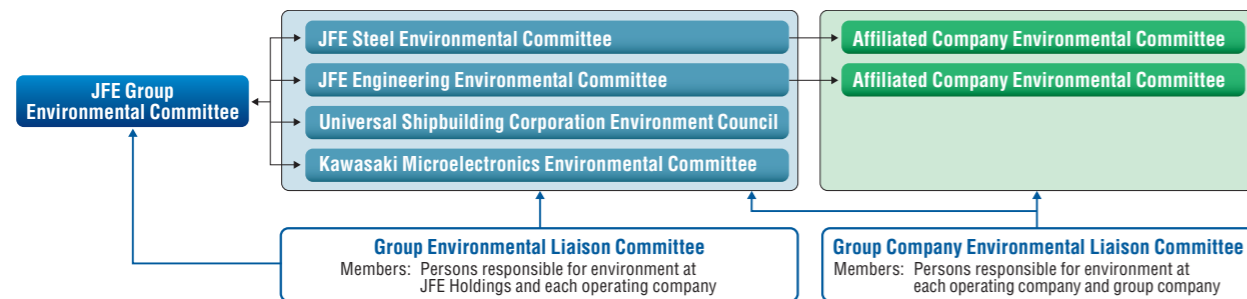
ssues, including reduction of environmental loads. Each business office has an Environmental Committee chaired by the president and also a localized Environment Management Committee.

JFE Engineering carries out environmental protection activities under clearly defined objectives through a structure for which the president serves as the top manager. At the end of each fiscal year, activities are reviewed for further improvement. Under the Environmental Committee, with the help of its subordinate Environmental

Expert Committee and Environmental Liaison Committee, is responsible for overall management as well as guiding group companies, and both planning and implementing environmental measures.

Universal Shipbuilding's Environmental Committee, which is chaired by the director in charge of environment-related issues, formulates policy and promotes improvement across the company by assessing and monitoring performance. Each business office has its own Environmental Committee for improvement activities.

Environmental Management System



Introduction of Environmental Management System

Each company in the JFE Group has been striving to acquire ISO 14001 certification to pursue voluntary environmental initiatives on an ongoing basis. The three operating companies with production operations have all received ISO 14001 certification for individual facilities. The companies and their affiliates also have retained their certifications through regular inspections and reviews.

Environmental Auditing

The JFE Group conducts environ-

mental auditing on the basis of ISO 14001 and internal auditing with the aim of enhancing environmental management quality. Inspections are made by certification authorities, while internal auditing is conducted by employees externally trained in auditing and experienced in environmental work. Personnel who have taken part in internal auditor-training programs also participate in audits.

JFE Steel's Audit Department and Environment Management Department of the head office conduct environmental audits of business offices and group companies. In FY2010, environmental auditing focused on water quality and PCB management. While the status was

confirmed to be good overall, selected measures have been implemented to deal with minor problems, such as a delay in updating manuals to reflect legal revisions.

JFE Engineering's audits mainly look into compliance with environmental laws and regulations at business offices, domestic construction sites and group companies.

Universal Shipbuilding's continuous improvements under ISO 14001 were confirmed through regular auditing of its business offices by an external certification organization. The company will continue to conduct internal auditing while strengthening its environmental management going forward.

Environmental Education

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

At JFE Steel, employees repeatedly take part in education on ever-tightening environmental laws and regulations and related compliance. JFE Steel also encourages employees to obtain qualifications as pollution control managers. In FY2010, support was provided to enable 337 employees to take examinations, of whom 73 passed.

JFE Engineering provided its own employees, and also employees of other group companies, with education on general environmental issues (three times a year), environmental laws and regulations (three times a year) and internal environmental auditing (four times a year).

Universal Shipbuilding provides new recruits with environmental education, managers with training on environmental laws and the acquisition of environment-related qualifications, and ordinary employees with education on environmental preservation. As emergency response training, marine pollution prevention exercises also were conducted in FY2010.

Employees of all group companies also attend meetings twice yearly to learn about environmental laws and regulations from outside experts. In FY2010, meetings held in July 2010 and March 2011 covered themes such as revisions of Japan's Soil Contamination Countermeasures Act and Wastes Disposal and Public Cleansing Act.



Environmental Education

Supply Chain Management

The JFE Group, in accordance with the concept of life cycle assessment (LCA), strives to reduce environmental loads at various stages of supply chains. The group's operating companies also work to reduce their use of materials with environmental loads in cooperation with business partners. Group procurement policies help to protect resources and preserve the environment by adhering to all relevant laws and regulations, and also the procurement principles prescribed under the Charter of Corporate Behavior developed by the Japan Business Federation. Going forward, the JFE Group will further accelerate efforts related to supply chains in which it participates.

Green Procurement

The JFE Group in 2002 developed its Green Procurement Guidelines for group-wide procurements of office supplies, production parts and raw materials.

JFE Engineering and Universal Shipbuilding also conduct their own green procurement initiatives. JFE Engineering uses the ratio of the values of green products to total procured office supplies as an indicator for each business office. Since FY2005, target ratios have been set each year and then revised accord-

ing to fiscal year-end performance reviews. Green procurement activities are now operated according to fixed targets at JFE Engineering.

Universal Shipbuilding promotes the procurement of products conducive to environmental-load reduction. This includes the proactive use of recycled stationery, office supplies and recycled copying paper, and the introduction of energy-saving office equipment.

Group Company's Failure to Measure Soot Particles

In February 2011, it was revealed that JFE Chemical Corporation had failed to measure soot particles at the Kurashiki plant of West Japan Works for many years. During this time, the manager of the manufacturing division had concurrently overseen environment management. Following the incident, JFE Chemical newly established its Environment Management Office independent of the manufacturing division and also appointed a manager exclusively responsible for the office with the necessary autonomy and authority to take care of such matters. JFE Chemical has also taken other steps to prevent any similar recurrence, including by entrusting soot particle measurement to an external measurement certification organization and by reeducating employees about environmental matters.

Environmental Accounting

Environmental Accounting Approach

The JFE Group, having adopted environmental accounting, now calculates and publically releases

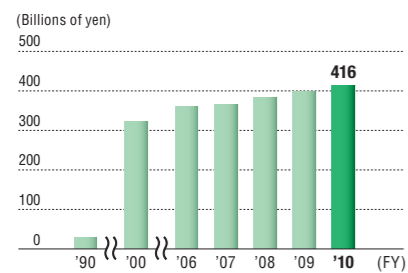
Environmental Management

its environmental preservation costs and effects. The group is chiefly characterized as a processing entity with JFE Steel as its core, in addition to many other kinds of production and facilities. To date, the JFE Group has made successful efforts to save energy and reduce environmental loads by making its production facilities more efficient and introducing more environmentally friendly equipment. These efforts are accounted for as environmental preservation costs, which comprise investment in energy-saving and environmentally friendly equipment and facilities, and also expenses required for environmental preservation and environmental load reduction.

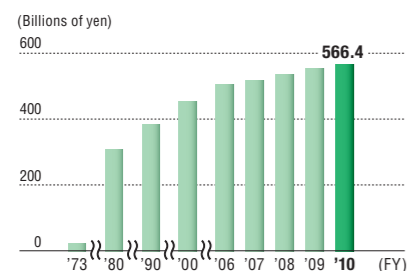
Capital Investment Trends

To save energy and reduce environmental loads stemming from production activities, the JFE Group actively invests in plant and equipment incorporating environmental technologies. Cumulative investment in energy saving totaling ¥416.0 billion since 1990 has enabled the group to achieve energy efficiencies

Cumulative Investment in Energy Saving



Cumulative Investment in Environmental Preservation Measures



that are among the highest in the world. Meanwhile, having already invested ¥566.4 billion in environmental protection measures since 1973, the group will continue to pursue investments aimed at helping to prevent global warming and reduce environmental loads.

Environmental Preservation Cost

Environment-related capital investment totaled ¥30.6 billion and expenses amounted to ¥108.5 billion in FY2010. Investment in global warming countermeasures, including energy saving, accounted for ¥16.7 billion, followed by ¥5.0 billion for air pollution countermeasures and ¥4.1 billion each for effective utilization of resources and water pollution countermeasures.

Expenses included ¥35.1 billion for air pollution countermeasures, ¥30.8 billion for global warming countermeasures and ¥16.7 billion for the cyclical use of industrial water. Environment-related R&D expenses came to ¥5.3 billion.

Environment-related investment as a share of total capital investment was around 24%. Environmental preservation measures focused on reducing water, air and dust discharges, expanding water treatment capacity for discharged water and adding more equipment to prevent the spread of dust.

Environmental Preservation Effects

In terms of environmental preservation costs, the JFE Group strives to improve its unit-based CO₂ emissions to help prevent global warming, and also to reduce its amount of final disposal through active recycling to help preserve resources. For environmental preservation, the JFE Group works to reduce discharges of airborne and waterborne substances with pollution loads, and also to comply with all statutory levels for exhaust gas emissions and discharged water. The monetary value of the group's environmental preservation costs is estimated at about ¥900 million in terms of energy-saving effect.

Breakdown of Environmental Preservation Costs

Description	FY2009		FY2010	
	Investment (Billions of yen)	Expenses (Billions of yen)	Investment (Billions of yen)	Expenses (Billions of yen)
Management	0.2	2.4	0.1	2.8
Prevention of global warming	13.6	23.6	16.7	30.8
Effective use of resources	11.9	18.2		16.7
			4.1	3.5
Environmental protection	4.4	38.0	5.0	35.1
			4.1	9.5
			0.2	2.7
Miscellaneous	—	1.5	—	1.5
Research & development	0.5	6.1	0.4	5.3
Societal activities	—	0.6	—	0.6
Total	30.6	90.4	30.6	108.5

Environmental accounting data stated above was calculated on the basis of the following assumptions.

Period: April 2009–March 2010

Coverage: Costs are environment-related investment and expenses at JFE's steelworks, except for research & development, for which the scope is extended to cover the entire group

* Environmental accounting effects, such as expected effects and risk avoidance effects, are excluded from calculations

* Calculations do not include capital investment made primarily for purposes other than environmental protection, such as renovation of superannuated facilities, even if the result is a net energy savings compared to the former facility

Environment-related Communication with Society

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

JFE Tombo Michi “Outdoor Class for Parents and Children to Observe Living Things”

In May 2011, JFE Engineering sponsored an outdoor class for parents and children to observe living organisms along the “JFE Tombo Michi” (JFE Dragonfly Path) and “Tombo Ike” (Dragonfly Pond) on company-owned land in Tsurumi Ward of Yokohama city. Under the guidance of experts, participants observed aquatic organisms, such as dragonfly larvae and killifish caught with scoop nets, and learned about the lives and habitats of these organisms.

JFE Tombo Michi is a nature trail JFE Engineering developed in 2009 in cooperation with Yokohama and other private-sector companies in the area. It is part of the “Keihin Afforestation” Suehiro District Joint Greening Project, a tree-planting initiative. The 360-meter nature trail located next to a railroad track is lined with trees and has a biotope at its entrance. The trail has been open to the public since its development



JFE Tombo Michi

and people in the community now enjoy strolling along the trail.

Tombo Ike is used for research on the flying routes of dragonflies. The research is being conducted by administrative agencies, experts, private-sector companies nearby and citizens who have been helping to monitor the status of dragonflies since the creation of the biotope. Dragonflies live in water during their larva stage and on land as adults, so they are considered to be useful environmental indicators. The fact that dragonflies and their larvae can be observed in Tombo Ike indicates, for example, that the pond offers rich natural surroundings. Going forward, JFE Engineering plans to use Tombo Ike as a base for environmental education for children as part of its overall CSR activities.

Environmental Exhibition Eco-Products 2010

The JFE Group participates in various exhibitions to provide stakeholders with information about its environmental activities. In December 2010, the group joined Eco-Products 2010 at Tokyo Big Sight under the theme “For the Future of Children—Addressing Environmental Challenges with JFE Technologies.”

The JFE booth introduced



Eco-Products 2010

ongoing environmental efforts and manufacturing processes essential for modern lives, including technologies for reducing environmental loads through green products. Also introduced were engineering technologies that support society and environmental technologies and products of the JFE Group.

Information via the Internet

The JFE Group uses its website to provide information about environmental management policies, performance and related activities. The group also cooperates with an environmental website, “ecobeing,” where general knowledge on environmental issues is presented in an easy-to-understand manner. Besides covering a wide variety of information, the ecobeing site also presents the opinions and comments of “eco people” regarding the environment. Overall, it is a very useful tool for educating a broad spectrum of people.

WEB JFE Holdings

CSR activities:
www.jfe-holdings.co.jp/en/environment

ecobeing environmental website:
www.ecobeing.net
(Japanese only)



Social Performance Report

JFE Steel's corporate governance policy is an appropriate, fair, and transparent blueprint for initiatives that are beneficial to stakeholders, including customers, business partners, stockholders and investors, and community residents.

This Social Performance Report presents FY2010 initiatives implemented by the JFE Group and its operating companies to ensure compliance and to benefit stakeholders.

JFE Group Standards of Business Conduct

All JFE Group executives and employees are expected to adhere to the following Standards of Business Conduct in all facets of corporate activities. These standards were created to embody the corporate vision of the JFE Group and go hand-in-hand with JFE's corporate values.

Senior executives take the lead in communicating these standards to employees throughout the group and in creating effective systems and mechanisms to ensure adherence. Suppliers are also asked to observe the JFE Group's Standards of Business Conduct.

Senior executives are directly involved both in the resolution and implementation of measures, including taking steps to prevent violations. They are obliged to disclose information about any violation in a timely and accurate manner both inside and outside the group, clarify the related authority and accountability, and shall deal rigorously with offenses.

- 1. Provide quality products and services**
Earn the trust and regard of customers by endeavoring to provide safe and high-quality products and services based on superior technology and by fully respecting and protecting the privacy of personal and customer information.
- 2. Be open to society at large**
Endeavor to communicate with shareholders and the broader community, and actively disclose corporate information.
- 3. Coordinate and cooperate with communities**
Actively contribute to communities as a good corporate citizen in a spirit of coordination and cooperation.
- 4. Globalize**
Endeavor to achieve mutual understanding with people around the world, working from a global perspective and respecting international regulations 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 relations with government and political authorities**
Endeavor to build and maintain sound and proper relationships with government and political authorities.
- 7. Disassociate from antisocial forces**
Refuse to associate with any and all elements or organizations that threaten social order and stability, and reject all illegal and improper demands.
- 8. Respect human rights**
Respect all employees and members of the general public as individuals and refrain from any and all 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.



Shareholders on plant tour (Shareholders and Investors, page 63)



Ecology Tour (Local Communities, page 66)



Passing on skills to new generations (Employees, page 67)



Discussing how to deal with customers (Customers and Clients, page 61)

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Compliance

About Compliance

Every aspect of a business is scrutinized with regard to corporate social responsibility (CSR) because society demands high levels of fairness and transparency. Compa-

nies that neglect this fact can pay a high price in terms of lost credibility, which can threaten a company's very existence.

The JFE Group makes compli-

ance — the foundation of CSR — a key priority, and takes steps to ensure that all employees embrace the importance of compliance and work to promote it.

Raising Compliance Awareness

Corporate Ethics Hotline

The JFE Group operates the Corporate Ethics Hotline to help ensure that important information regarding compliance is communicated from the front lines to top management rapidly and accurately. The hotline is managed according to regulations and rules that protect people who report information or seek advice.

During FY2010, the Corporate Ethics Hotline received 31 calls regarding matters at JFE Holdings and its operating companies. In each instance, facts were confirmed and callers were provided with response feedback. Access to the hotline

has now been extended to group companies as an important step in strengthening compliance within the JFE Group.

Cases handled by corporate ethics hotline in FY2010 **31**

Compliance Guidebook

As part of its efforts to strengthen compliance-related initiatives, the JFE Group distributes its Compliance Guidebook to all employees and executives. This guidebook was first issued in June 2006 and supplemental versions followed in 2007 and 2009.

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. In preparing the guidebook, organizational units within the JFE Group painstakingly identified seemingly routine matters that can be unclear or confusing, and then prepared explanations that attorneys reviewed for legal compliance. The guidebook is used in company training and must be read by employees.

Awareness Survey

The JFE Group conducts its Corporate Ethics Awareness Survey to quantitatively assess employees' awareness of ethics and identify possible risks, as well as to help employees stay informed about JFE's corporate vision. Recent surveys indicate that many employees believe compliance awareness and behavior have strengthened at JFE. More specifically, 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.

Compliance guidebook (2009 supplemental version)

Approx. **68,000** copies distributed



Compliance Guidebooks



Poster

Compliance

Compliance Training

To ensure thorough compliance, the JFE Group conducts compliance training on individual topics, such as antimonopoly law, prevention of insider trading, security export controls, and the Construction Business Act. Compliance education includes training targeted at managers as well as new hires.

Compliance Pledge

JFE Group employees annually set job goals and, upon that occasion, pledge to comply with all laws and regulations, both internal and external in the performance of their work. Having employees make that pledge helps to foster compliance awareness.

Compliance Training

October, JFE Steel's designated Compliance Month, is when individual worksites conduct compliance training to encourage employees to become more aware of, think about, and gain a better understanding of the rules. Individual departments hold sessions in participants read

parts of the Compliance Guidebook, supporting information posted by the Legal Affairs Department on the company intranet, as well as legal texts, internal regulations, and other information. The aim is to foster awareness of the need for compliance and encourage people to consider if their work practices actually comply with relevant rules. Afterwards, work practices and company rules are revised as required.

Antimonopoly Law Compliance Initiatives

JFE Steel and JFE Engineering, both regretting past violations of the Antimonopoly Law, continue to implement thorough measures to eliminate the possibility of future infringements.

In addition, the internal audit departments of both companies check to see if any aspects of contact with other companies could be viewed as violating Antimonopoly Law. They also check if initiatives aimed at promoting compliance with the law are functioning properly. Audits are regularly conducted at all

business locations, including those of branch offices.

Other group companies also are implementing initiatives to promote compliance with the Antimonopoly Law.

Key Initiatives of Both Companies

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

In addition, JFE Steel monitors the activities of external organizations in which its sales department participates, and JFE Engineering works to ensure that its order-acceptance process is transparent and otherwise in conformance with antimonopoly requirements.

Primary Training at Group Companies (FY2010)

Company	Training	Participants
JFE Steel (and its group companies)	Antimonopoly Law	604 (26 sessions)
	Other law-related training	780 (24 sessions)
JFE Engineering	Construction Business Act	1,121 (44 sessions)
	Antimonopoly Law, Subcontract Law, and other regulations	2,018 (67 sessions)
Universal Shipbuilding	Human Rights	1,760 (e-learning courses)
	Compliance	298 (5 sessions)
Kawasaki Microelectronics	Appropriate accounting practices	1,015 (6 sessions)
	Management of confidential information	332 (e-learning courses)
	Security Export Control	97 (e-learning courses)
	Management of information security	346 (e-learning courses)

Working Against Antisocial Forces

The JFE Group Policies for Addressing Antisocial Forces works to ensure sound company management through uniform organization-wide measures in response to antisocial activities.

Addressing Antisocial Forces

The JFE Group takes care to completely avoid any relationship with any antisocial forces. The General Administration and Legal Affairs divisions of each group company are the organizational units responsible for dealing with issues related to antisocial forces. These divisions report any related incident, establish relevant rules, and work with police and other authorities to resolutely address such matters.

Rejection of Antisocial Forces

Clarification of JFE Group Standards of Business Conduct

The JFE Group Standards of Business Conduct clearly state that the group refuses to associate with any element or organization that threatens social order and stability, and rejects all illegal and improper demands.

Regulations for Addressing Violence Directed at Companies

The Regulations for Addressing Violence Directed at Companies have been established and standards for addressing antisocial forces — including a manual for initial steps to take in responding to violence

targeting companies — have been clearly specified.

Training

Thorough understanding of the JFE Group Policies for Addressing Antisocial Forces and specific response standards is ensured among all executives and employees through training and other steps such as distribution of the Compliance Guidebook.

Database and Terms for Fighting Organized Crime

A database of antisocial activities is being created and terms aimed at fighting organized crime are being included in agreements signed by JFE Group companies.

Information Security System

The JFE Group's information management system supports the smooth and appropriate conduct of business.

Prevention of Information Leaks

Loss or Theft

1. Use of security wires to protect hardware
2. Encryption (certain areas of hard disks)
3. Limits on use of removable media
4. Office-access control
5. Biometric authentication for server room access

PCs

1. Startup authentication
2. Maintenance of logs for transfer of data to external media
3. Limits on use of removable media

E-mail and Internet

1. Checking e-mail sent to external parties

2. Retention of all e-mail transmissions
3. Limits on use of Web-based e-mail
4. Limits on use of Web-based bulletin boards, etc.
5. Use of antivirus and antispyware measures for LANs

In addition, JFE's integrated security system (electronic authentication and encryption) and other measures help to defend against attacks involving false IDs and efforts to steal or falsify information.

Privacy Protection

The JFE Group has formulated the following policies on the handling of personal information to facilitate the smooth and appropriate group operations.

Basic Policies for Protection of Personal Information

1. The JFE Group, in light of the growing use of personal informa-

tion in our advanced digital society, endeavors to protect the rights and interests of individuals while also considering the value of this information from a business perspective.

2. The JFE Group observes the Law Concerning the Protection of Personal Information and all other relevant laws and ordinances, and endeavors to adhere to both the spirit and the letter of such laws in the protection of personal information.

3. The JFE Group protects personal information through internal rules on the management of such information, and by informing, educating and training employees on these rules and on applicable laws and ordinances. The JFE Group reviews and enhances its privacy protection measures and internal rules on an ongoing basis.

 <http://www.jfe-holdings.co.jp/en/privacy.html>

Customers and Clients

Quality Assurance System

JFE Steel

JFE Steel has acquired ISO 9001 and various other quality assurance (QA) certifications, including the JIS mark and approvals from ship-classification bodies. The company works to ensure thorough compliance and improve testing reliability in accordance with industry guidelines. It is also moving forward with efforts to further improve quality and strengthen its quality management system under a framework standardized with quality-control manuals.

As one example, the material testing facilities at the Chita Works were updated to meet requirements for high-performance products, and testing equipment was rearranged

for optimal functionality and to enable customers to observe testing more easily.

JFE Steel group companies also make constant efforts to improve their quality-assurance systems, as well as product quality itself.

JFE Engineering

JFE Engineering has a comprehensive quality-assurance system for the entire company, covering whole places of activities from sales, design, procurement, and installation to follow-up services.

Each business department has obtained ISO 9001 qualification by developing QA manuals for respective products, thereby helping to

satisfy customers' rigorous demands for product quality.

Universal Shipbuilding

Universal Shipbuilding has obtained various certifications for each of its shipyards for new ships, including ISO 9001 and qualifications from both ship-classification bodies and the Japanese government.

Each group company has its own quality-assurance system to serve as the basis for ensuring product quality in all processes, from sales, design, and shipbuilding to follow-up services, to satisfy customer expectations and needs.



Material testing facilities

JFE Engineering's Quality Management System



Fair Competition and Trade

Compliance in purchase/procurement activities is critical to becoming a good business partner and developing mutual understanding and trust with suppliers. Each JFE

operating company clearly defines its purchase/procurement policy and discloses it to suppliers to help them maintain the same high standards.

WEB Purchase/Procurement Policies (Examples)

JFE Steel
www.jfe-steel.co.jp/company/purchase_policy (Japanese only)

Universal Shipbuilding
www.u-zosen.co.jp/procurement (Japanese only)

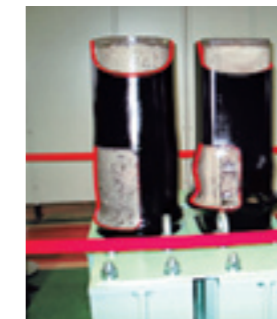
Customer Satisfaction

JFE Steel

Facility for Joint Development with Customers

JFE Steel operates a research and testing facility for joint product development together with customers. The facility includes the Customers' Solution Lab specifically for auto industry customers and the Steel Structural Materials Solutions Center for steel and housing materials and related application technologies.

There is also an exhibition area to present research results achieved at the facility, an area for studying the characteristics of materials and structures, and conference rooms. JFE Steel uses the facility to help customers resolve technology issues through experimentation and discussion. A variety of undertakings have already taken place at the facility, including many kinds of joint research projects and application of numerous JFE technologies.



Technology created through joint research (example) Concrete-filled steel tube based on HBL® 385 (high-strength steel sheets for buildings)

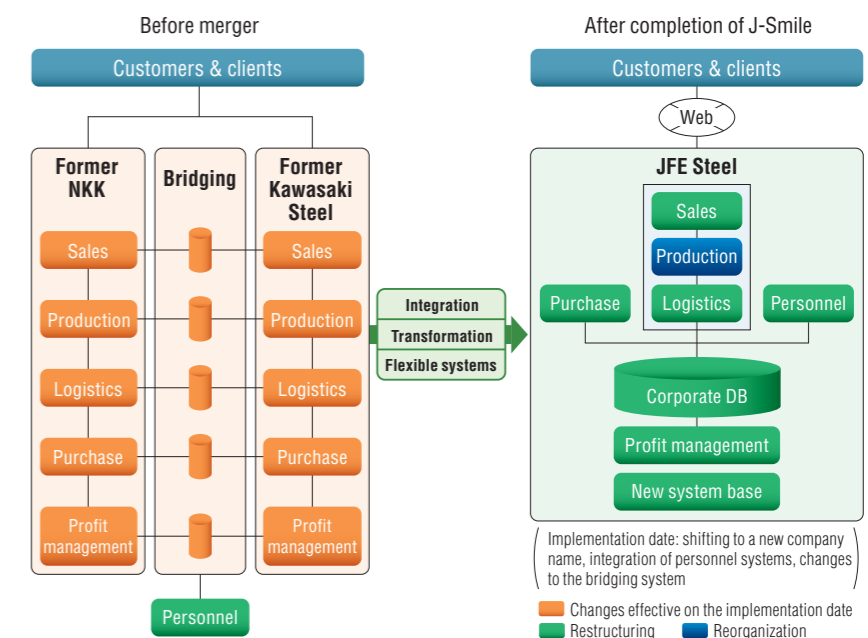
J-Smile provides a foundation for continuously adapting to new business conditions for new growth. It has enabled JFE Steel to strengthen its response to customer needs in areas such as lead time and delivery date, quality assurance, and product development. At the same time, existing systems at steelworks have been upgraded for effective consolidated operational control and management.

For its success in realizing operational processes and systems that facilitate innovation, J-Smile received the FY2006 Minister of Economy, Trade and Industry Award for Companies, 2nd Prize at the IT Japan Awards 2007, and the World Information Technology and Services Alliance IT Prize 2008.

Operational System

JFE Steel's J-Smile system, launched in 2006, has enabled the company to create a strong management information infrastructure and operational system by better leveraging management resources, ultimately to increase customer satisfaction.

Outline of Newly Integrated Operation System



JFE product adopted for study (example) High-strength steel tubes (P-500 and P-630) for Tokyo Sky Tree® tower

Steel Structural Materials Solutions Center's civil engineering steel materials exhibition area was redesigned in August 2010 to better meet customer needs.

Customers and Clients

Customer Strategies

JFE Steel is constantly accumulating information to better serve customers. Through frequent customer surveys and interviews, the company develops business strategies that are shared among the sales departments, business planning department, steelworks, and research laboratories, thereby helping to accelerate operations for improved customer satisfaction.

Nurturing Capabilities of Sales Department

The Sales Department holds meetings by gathering 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 specifically on:

- How to overcome challenges and reach resolutions to enhance customer relationships
- What else could be done to further enhance customer relationships.

The above two points are considered by the participants, who then



Presentation by New Delhi Office on dealing with customers

take new ideas back to their respective sales offices to strengthen local capabilities.

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

The Sales Department of JFE Steel conducts basic courses on steel for newly appointed sales personnel. The aim is to improve their ability to discuss technical matters with customers, make rapid decisions on and implement initial responses to complaints, and identify new customer needs as possible leads for new products. The effort is backed by handbooks on the components and end uses of products in specific sectors and fields.



Training session

JFE Engineering

Application of Customer Information

Through customer surveys and interviews for products and services,

JFE Engineering is accumulating customer's feedback on construction management, product quality, advanced technologies, and innovation. The information is analyzed by marketing, design, manufacturing, and research divisions with common goal of improving quality, developing new products, and enhancing follow-up services.

JFE Steel/Kawasaki Microelectronics

Appropriate Export Procedures

To promote international peace and security by working against the spread of weapons of mass destruction and excess accumulation of conventional weapons, JFE Steel carries out export inspections to confirm final destinations, customers, and applications of its products. Internal briefings also are conducted by the Legal Affairs Department to ensure thorough understanding and compliance with the Foreign Exchange and Foreign Trade Act and other export-related laws and regulations. Similarly, Kawasaki Microelectronics carries out various measures, including e-learning to enhance employee understanding of export security controls, to help ensure the appropriateness of its export procedures.

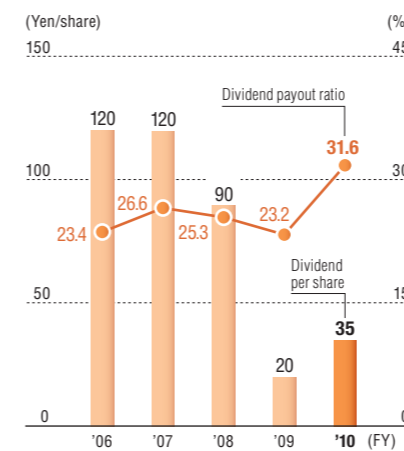
Shareholders and Investors

Returns to Shareholders

JFE Holdings considers returns to its shareholders to be one of its top management priorities. The company strives to ensure a sustainable financial position to aggressively provide dividends while also proceeding with investments designed to achieve new growth and improved financial health of the group.

The goal is to maintain a basic payout ratio of around 25% and proactively invest in areas such as securing interests for resource acquisition and expansion of operations in Asia.

Returns to Shareholders



Dividend payout ratio for April 2008–March 2011

26.2%
(average)

Information Disclosure

Basic Policy

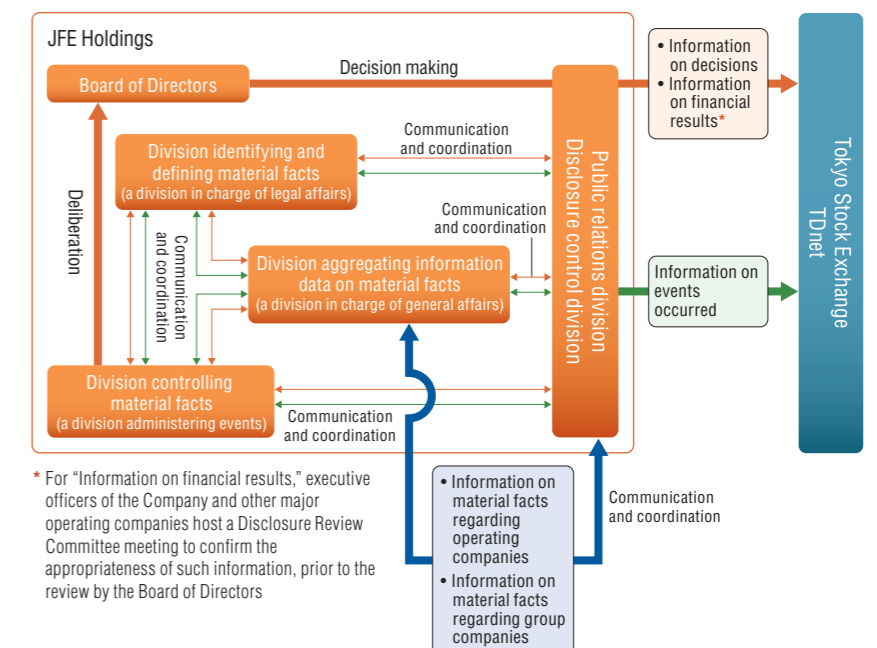
JFE strives to enable all stakeholders, including shareholders and investors, to better understand the company. Important information is disclosed accurately and fairly, and in a timely and appropriate manner, in line with the Financial Instruments and Exchange Act and the Regulations on Timely Disclosure of Company Information by Issuers of Listed Stocks as stipulated by the Tokyo Stock Exchange.

Company Information

To ensure information is provided publicly in line with regulations requiring timely information disclosure, JFE uses the timely disclosure network system (TDnet) provided by the Tokyo Stock Exchange. In principle, information disclosed via TDnet is also disclosed on the JFE website in a timely manner. For information not applicable to these disclosure regulations, care is taken to ensure it is communicated properly to shareholders in an accurate and fair manner.

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

Information Disclosure System



Shareholders and Investors

Communication with Shareholders and Investors

Shareholders

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

To improve shareholders understanding, the company has been holding plant tours and briefing sessions since FY2006. In FY2010, 36 tours and briefing sessions were organized for 2,254 shareholders at the JFE Steel's East Japan Works (Chiba Area and Keihin Area) and West Japan Works (Kurashiki Area and Fukuyama Area), JFE Engineering's Recycle plant (Keihin Area) and



Shareholders on plant tour

Shareholders at general meeting of shareholders in June 2011

1,211

Participants in guided plant tours for shareholders (FY2006–FY2010)
Approx.

11,716

Tsu Works, and Universal Shipbuilding's Tsu Shipyard.

Investors

For institutional investors and securities analysts, the JFE Group gives individual interviews and sends staffers to visit both domestic and overseas investors. For briefing sessions targeting institutional investors, fair disclosure is ensured through activities such as online publication of materials.

For individual investors, JFE disseminates information through briefing sessions at the branch offices of securities firms, etc., transmission of video interviews with the top management, and an IR email to registered recipients.

In principle, English-language versions of important press releases are sent to investors in overseas locations when a Japanese version is released, along with other steps to ensure that foreign investors receive the same information as Japanese investors.

JFE believes it is important to determine the kinds of companies and markets that institutional investors regard highly, as well as determine how JFE Group perceived, and then provide this information to operating and group companies.

Toward that end, investor relations activities were strengthened through the establishment of the IR Section in the Finance and IR department in October 2009.

Information Dissemination

JFE Holdings is devoted to enhancing the content of its website, which attracts large numbers of visitors, to help shareholders and investors

develop a better understanding of the company. The publication *For Shareholders*, issued semiannually, includes a message from the president & CEO, a summary of business results, and discussions of matters related to the JFE Group.



For Shareholders



Website

Individual interviews with institutional investors and securities analysts in FY2010

600 people

Briefings for private investors at securities firms in FY2010

30 sessions
Approx. **2,800** people

Local Communities

Philanthropic Activities of JFE 21st Century Foundation

The JFE 21st Century Foundation, originally as Kawasaki Steel 21st Century Foundation, was established in 1990. Taking its current name in 2003, the foundation works to fulfill its original mission of being open to society and promoting the common good.

Technical Research Assistance

The foundation has been providing research assistance on a competitive basis to promote technology research at universities since FY1991. Through the end of FY2010, 415 grants totaling 830 million yen had been awarded to universities.

Among most recent grants awarded in FY2010, 11 supported research for steel technology and 10 for global environmental technology/global warming countermeasures. Each grant was worth two million yen. To date, the foundation's cumulative support for these two research fields totals 42 million yen. Reports on research results are posted on the foundation's website.



Presentation ceremony

Total grants for technical research

415 projects
830 million yen

Asian History Studies

The foundation began awarding grants to support Asian history studies at Japanese universities in FY2005. During FY2010, 83 applications were received and seven grants, each worth 1.5 million yen, were ultimately awarded.

Total grants for Asian history studies

46 projects
69 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 studying overseas. Copies of *Chikyu ni Manabu* (Learn from the Earth), a collection of the winning entries in FY2010, were presented to 478 elementary schools, 215 middle schools, 105 public libraries, and 11 education committees.

Events in FY2010

- Jo Chihun Cup Go Competition (Chiba City)
- Chiba Prefectural Youth Go Competition (Chiba City, Funabashi City)
- International Music Day Concert, Chiba Citizens' Music Festival (Chiba City)
- MUZA Lunch & Night Concert (Kawasaki City)
- Community Festival (Kawasaki City)
- Yokohama Children's International Peace Speech Contest (Yokohama City)
- Handa Community Industrial Festival (Handa City)
- Mie Prefecture High Schools' Robot Tournament (Tsu City)
- Kurashiki Music Festival (Kurashiki City)
- Kurashiki Shogi Tournament (Kurashiki City)
- Fukuyama Rose Festival (Fukuyama City)
- The World of Matsuri (Fukuyama City)



Chiba Prefectural Youth Go Competition



Yokohama Children's International Peace Speech Contest

Local Communities

Support for External Organizations

Japan Association for the 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), a United Nations organization with the mission of eliminating hunger and poverty. The association conducts promotional activities to help expand the circle of WFP support in Japan, including collecting donations to assist WFP activities, conducting public relations activities, and promoting cooperation with companies and organizations. The JFE Group supports these activities.

Training for Foreign Doctors

Assisted by private corporations, Toranomon Hospital has been managing the Japanese Council for Medical Training (JCMT) to provide training opportunities for foreign doctors. This program invites doctors from developing countries primarily in Asia to Japan, allowing them to go through advanced medical training and then return to their home countries to promote enhanced medical standards. It also aims to foster friendship between Japan and countries that dispatch doctors. The JFE Group provides assistance to this undertaking.

WEB About JCMT visits www.jcmt.jp/english

Japanese Foundation for Cancer Research

The Japanese Foundation for Cancer Research is helping to overcome cancer by playing a leading role in research and treatment, as well as

human resources development in Japan since its establishment in 1908. The JFE Group supports the foundation's activities.

Nihon Ki-in

The Nihon Ki-in engages in public-service activities related to the Japanese game of *igo*. *Igo* has attracted attention from the social welfare, medical, and educational communities for being not just a game but also a useful tool for invigorating the brain, making people's lives worthwhile, and offering a social activity. *Igo*, a lifelong interest and integral part of life for many people, serves as a focus of communication in many communities and plays a useful role in the development and enrichment of youths. The JFE Group supports and the activities of the Nihon Ki-in.

Support for Youth Development

Japanese Language Speech Contest

The China Education Association for International Exchange, The Society of Chinese Professors in Japan, and Nikkei Inc. have been sponsoring the All China Japanese Speech Contest since 2006. The purpose of this contest for Chinese students is to improve their language and com-



All China Japanese Speech Contest

munication skills for better relations between Japan and China. The contest, the first of its kind held at a national level in China, involves preliminary rounds in eight regions and the final round in Tokyo. The JFE Group supports the contest as a way to promote international exchange and contribute to society.

Internships

JFE Steel offers internships at its steelworks and research facilities for students of graduate schools, universities, and technical colleges. Approximately 80 students from throughout Japan participated in these approx. two-week internships, which provide practical experience in what it is like to work in such facilities. Both schools and students have praised the internships as excellent opportunities to learn about possible careers and involvement in society.

JFE Engineering hosted 10 interns, mostly at its Technical Research Center, and Universal Shipbuilding welcomed 20 interns each to its Ariake and Tsu shipyards.

Aid for Disaster Relief

The JFE Group provides financial assistance to support the recovery of areas stricken by major disasters.

- Floods in Gansu Province, China and other areas (August 2010) Contributed 3 million yen to Japanese Red Cross Society
- Great East Japan Earthquake (April 2011) Contributed 100 million yen for rescue and recovery in disaster areas

Education at Elementary School

East Japan Works of JFE Steel provided a course at Samugawa Elementary School in Chiba city as part of JFE's initiatives to assist communities. The course allowed 86 pupils from three classes in the fifth grade to take part in a quiz on steel at the school gymnasium. The questions were created so that the children could understand the scale of steel production through comparison with items encountered in daily life. The answers were beyond knowledge available in textbooks and were actually quite difficult to figure out, providing the pupils with a fun but challenging educational activity.



Course at elementary school

Manufacturing Classroom

Since FY2003, JFE Steel has been working with elementary school children in the Chita area of Aichi Prefecture to help them appreciate that making things is interesting and fun. Retired employees teach and assist children to make accessories out of cast parts and then accom-



Manufacturing classroom

pany them on plant tours. In FY2010, the company held 10 tours for 685 students.

High School Essay Contest

The Japan Science & Engineering Challenge (JSEC) is a national science paper contest for high school and technical college students.

JFE Steel began supporting the JSEC in 2006 out of its desire to foster the development of future scientists and engineers. In 2010, the JSEC JFE Steel Prize was awarded to Chiba Municipal Chiba High School. JFE Steel also presented the school with an additional award.



Awards Ceremony of JFE Steel Award

Ecology Tour

Eco-Products 2010, one of the largest ecological product exhibitions in Japan, held at Tokyo International Exhibition Center in December 2010, offered ecology-oriented tours tailored for young visitors. JFE Steel participated in the program to provide the children with easy-to-understand presentations about the group's environmental initiatives.



Ecology Tour

Plant Tours

The JFE Group annually opens up its manufacturing facilities to local residents for demonstrations, tours, and other events.

In addition, recreational facilities are made available for local sports activities, and the group also sponsors soccer, baseball, volleyball, basketball, and other sporting events.

JFE Steel

JFE 2010 Chiba Festival	October 24, 2010	East Japan Works, Chiba
Sixth Community Festival	November 7, 2010	East Japan Works, Keihin
JFE West Japan Festival in Kurashiki	November 3, 2010	West Japan Works, Kurashiki
JFE West Japan Festival in Fukuyama	May 9, 2010	West Japan Works, Fukuyama
Handa Community Industrial Festival (Handa)	November 13, 2010	Chita Works

Universal Shipbuilding

Ariake Family Festa	October 16, 2010	Ariake Shipyard
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JFE West Japan Festival in Kurashiki

Visitors to JFE Group festivals in FY2010
Approx.

413,000

Employees

Deployment of Human Resources

Recruitment

With Japan on the verge of a massive generational change due to baby-boomer retirements, securing outstanding human resources is a key issue for the JFE Group. Both new university graduates and mid-career personnel are being recruited from increasingly broader channels in view of labor supply and demand conditions going forward.

Personnel Data

	JFE Steel	JFE Engineering	Universal Shipbuilding
Employees (Individuals)*1	14,154	3,188	3,659
Recruits (Individuals)*2	571	111	76
Average Years Employed (Years)*1	21.1	18.2	15.0
Job Turnover Rate*3 (%)	0.74	0.83	1.11

*1 As of March 31, 2011

*2 Total new graduates and mid-career recruits

*3 Job turnover rate = Voluntary resignations/Total employees

Passing on Skills and Reemploying Retirees

With individual steelworks all expressing the desire to continue applying the valuable know-how of veteran employees, JFE Steel created a Senior Expert Program for rehiring employees who reach the mandatory retirement age of 60. As of April 2011, JFE Steel had rehired approximately 1,030 retirees under this

program. Furthermore, the company is devoting significant time and effort to establish a program to help junior and mid-level employees improve their techniques and skills. Rehires support the program as instructors and pass on their knowledge.

JFE Engineering also has a reemployment system to transfer the techniques, skills, and project experience of veteran employees to younger generations. Its Career Consulting Section takes important role to support employees at mandatory retirement or a second retirement after reemployment to continue their careers.

At Universal Shipbuilding, veteran employees over the age of 60 instruct younger employees on a daily basis in order to pass on techniques and skills as expeditiously as possible. The company has also established a department in charge of technical assistance, and assigns a mentor for each young worker to provide technical guidance.



Passing on skills to younger generations

Human Resource Development

In parallel with its expanded exports and overseas businesses, JFE Steel has been investing in the development of global human resources. To foster professionals well-informed in their various fields of specialty, the company educates people on-site in management and language skills. Increasingly comprehensive study and training also includes more opportunities for employees to go abroad. Personnel sent abroad for study or training are growing by around 100 additional people every year, with a special emphasis on younger employees.

JFE Engineering, in addition to its personnel training, has adopted an internal recruiting system by employees' appealing to optimize its allocation of personnel and make the most of their capabilities.

Universal Shipbuilding works to steadily nurture outstanding human resources. The company's entire study and training system is being upgraded to develop next-generation human resources, ensure the growth of individuals, and establish a system to guarantee growth as a corporation.

Helping Women to Thrive

The JFE Group, in addition to observing an equal-pay system in accordance with the Equal Employment Opportunity Act for Men and Women, also places a top priority on creating working environments in which women can thrive. The company is not only working to increase its hiring of women, but also improve their working conditions. Consideration is being given to a wider breadth of areas to which women are assigned, along with other steps toward a greater range of roles women can play in the group.

As of April 2011, JFE Holdings and its operating companies had approximately 6,600 career-track employees (about 5,100 in management positions), among which were 149 women (46 in management positions).

New recruits in FY2011 included 22 out of 264 women in positions with prospects for promotion, of which 15 out of 55 women were in white-collar positions with prospects for promotion.

Work-life Balance

The JFE Group strives to create pleasant, productive working conditions and strengthen its status as an attractive employer. Going forward, employee needs will continue to be identified through regular dialogue with labor unions and other parties, and working conditions will be further improved whenever appropriate.

Child Care/Nursing Leaves

	(People)		
	FY2008	FY2009	FY2010
Child care leaves	33 (0)	37 (1)	34 (2)
Nursing leaves	4 (0)	3 (1)	4 (3)

* Figures in parentheses are males

Family-friendly Employment Policies

1. Extended Child Care Leave

Employees can take extended child care leave until their child reaches 18 months of age. Thereafter, under certain circumstances, such as difficulties in finding a vacancy at a Child Care Center, an additional extension may be allowed to the end of March of the year following expiration of the 18-month period.

2. Abbreviated Working Hours

Employees may work two fewer hours per day until their child finishes the third grade of elementary school.

3. WLBS (Work-Life Balance Support) Leave

Employees who must provide nursing care or take part in school events may take up to five days of leave per year until their child finishes elementary school. Employees with more than one child may take up to 10 days of leave per year. Also, WLBS Leave may fill the shortage of abbreviated working hours.

Employment of People with Disabilities

To provide opportunities for people with various disabilities to fully exercise their capabilities, the JFE Group operates three special subsidiaries: JFE Apple East Corporation, JFE Apple West Corporation, and Mie Data Craft Co. Ltd. In addition, Universal Shipbuilding established a special subsidiary called Ariake Business Support in April 2011.

New Special Subsidiary

To employ more people with disabilities, Universal Shipbuilding established Ariake Business Support as a special subsidiary on the premises of its Ariake Shipyard in April 2011. The business mainly provides support in creating and complementing various services for Universal Shipbuilding.

Ten people initially were employed and further recruitment of people with disabilities is being carried out.

Employment of Persons with Disabilities (as of every June)

	2009			2010			2011		
JFE Steel	2.00	1.99	1.95						
JFE Engineering	2.06	2.06	1.86						
Universal Shipbuilding	1.67	1.40	1.51*						
Kawasaki Microelectronics	2.02	3.33	3.67						

* Including people employed at Ariake Business Support as of 2011

Ratios of employees with disabilities (As of June 2011)

* Statutory employment rate is 1.8%

JFE Steel:

1.95%

JFE Engineering:

1.86%

Universal Shipbuilding:

1.51%

Kawasaki Microelectronics:

3.67%

Corporate Information

- **Company Name**
Ariake Business Support Corporation
- **Address:** (Universal Shipbuilding Ariake Shipyard)
Nagasu-machi, Tamana-gun, Kumamoto Prefecture
- **Employees:** Approx. 50 (of which approx. half have disabilities)
- **Capital:** 80 million yen

Employees

Positive, Productive Working Environments

Respecting Human Rights

The JFE Group, viewing respect for human rights as both a corporate social responsibility and a foundation of management, works to raise awareness of human rights among all employees. Specific examples include 1) appointment of employees to oversee human rights education, 2) implementation of human rights training courses, and 3) guaranteed employment opportunities and promotion of fair human-resource management.

Sexual harassment is prevented through measures including the establishment relevant work regulations, holding training, displaying posters, and setting up hotlines staffed by multiple men and women at each business location. Training also covers the prevention of power harassment. During Human Rights Week, leaflets with messages from management are distributed and employees are encouraged to submit related slogans.



Human rights training course

Human rights course trainees in FY2010
JFE Steel:

3,102

Employee Health and Safety

Providing for the safety and health of employees is a basic requirement of manufacturers and fundamental to the continued existence of any company. Based on its fundamental belief in the philosophy of "safety first" as declared by the company president himself, JFE Steel strives to enhance its safety measures through measures for resolving health and safety issues in communities and workplaces, promoting mental and physical health, and strengthening health and safety at group companies.

JFE Engineering works to achieve safety through risk assessment and the promotion of mental and physical health at approximately 2,000 construction and other work sites of the group in Japan. The overall aims are to eliminate accidents and improve safety and health.

Universal Shipbuilding, based on the fundamental philosophy of "safety first," enhances, improves,

and strengthens safety and health based on targets. These include implementing Occupational Safety and Health Management System (OS-HMS) practices by every employee, assuring the primacy of safety and health in the workplace, and creating comfortable working environments as well as conditions for mental and physical health.

Rate of lost-worktime injuries for FY2010
JFE Steel:

0.21

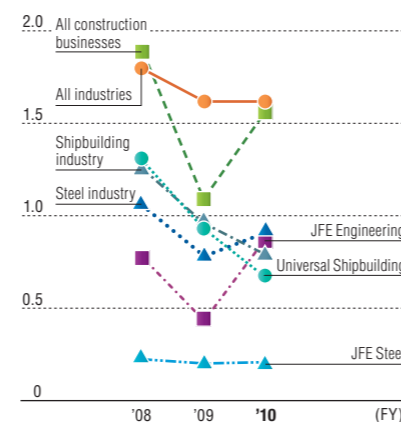
JFE Engineering:

0.87

Universal Shipbuilding:

0.67

Rate of Lost-Worktime Injuries at JFE Steel, JFE Engineering, and Universal Shipbuilding



Occupational Safety and Health Forum



Poster

Disaster-prevention Measures

Regular Training for All Employees

JFE Steel conducted company-wide disaster-prevention training in September 2010. The training was carried out under the assumption of an earthquake registering a seismic intensity of a weak 6 (moment magnitude) striking the Tokyo metropolitan area during working hours on a weekday, resulting in damage to the East Japan Works, Keihin. Since this training aimed to recreate realistic conditions, the facility that sustained the pretend damage was not decided until just 30 minutes prior to the drill, chosen from among five plants spread across the country. Emergency headquarters were set up on-site, at the head office, and one each at the West Japan Works and Chita Works. E-mail and TV conferencing systems were assumed to be inoperable, so satellite-based mobile phones were used. As JFE Steel

works to strengthen its disaster preparedness, the results of this training will be used to improve understanding of the requirements and issues related to the task of continuing operation after a disaster has occurred.

JFE Engineering has prepared a portable Earthquake Disaster Manual to provide employees with guidance in responding to an earthquake disaster. The manual has been distributed to all employees to ensure that everyone understands what is expected of them when a disaster occurs.

After having experienced the Great East Japan Earthquake, the JFE Group is resolved to further strengthen its disaster-prevention countermeasures.

Health Management

The JFE Group carries out health-management initiatives to ensure that all employees can fully exercise

their capabilities while maintaining healthy minds and bodies.

JFE Group Initiatives

1. Preventive measures for workplace-related illness, including improved working environments, appropriate work demands, and early detection and treatment through examinations
2. Regular physical examinations
3. Advice for employees for whom a physical examination has detected a problem
4. Treatment and follow-up by partner hospitals and their networks
5. Mental health care (counseling services, education of managers, care for those in need, etc.)

JFE Steel initiatives (besides above)

6. Review of health-management measures at industrial physician meetings
7. Hosting of case-study reviews by industrial physicians
8. Operation of health-management systems
9. Specialized healthcare advice
10. Preventive measures against new influenza

Development of Dynamic Work Environments

Building Sound Labor-management Relations

The JFE Group works to build sound, constructive labor-management relations.

Believing that honest communication is the foundation for sound labor-management relations, JFE Steel convenes the Labor-Management Business Discussion Committee four times a year to bring the company's president and other executives together with labor representatives.

JFE Engineering and Universal Shipbuilding, along with their Central Labor-Management Committees, create additional opportunities for their presidents and other executives to share opinions with labor representatives.

Dynamic Workplace through Small-group Activities

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.

Similarly, about 200 small groups participate in JE1 Activities at JFE Engineering. JE1, short for "JFE Engineering into an excellent and No. 1 company," comprises initiatives of each group that bring the entire workplace together and challenge of each

employee to stimulate creativity.

Universal Shipbuilding's "Innovation 10+1" program enables individual workplaces to address issues such as work improvement, quality assurance, and company-wide activities. The company also creates opportunities for each office and shipyard to announce their successes in solving such issues.

Exchanging Opinions with Employees

JFE Engineering periodically holds meetings with all employees to explain management policies. The company also encourages executives and employees to frequently hold discussions to exchange their opinions and views.

Awards and Accolades

Employee Recognition Awards

The JFE Group has an awards program for recognizing the outstanding accomplishments of employees, companies, and organizational units with regard to business activities and operations.



Awards ceremony of JFE Steel President's Award

Internal Awards

Name of Prizes/Awards	Reasons for Award Selections	Award-winning Departments
JFE Steel: JFE Steel President's Award	9 Awards of Excellence for achievements in developing and stably supplying steel materials for Tokyo Sky Tree® tower	Steel Material Products Technology Department and others, JFE Steel West Japan Works
JFE Steel: New Product Development Award	Development of high-performance steel plates for nuclear power industry	Steel Material Products Technology Department and others, JFE Steel West Japan Works
	Super-lightweight high-stiffness interior materials for automobiles (KP Sheet and M material)	KP Sheet
JFE Engineering: Award for Top Revenue-Generating Team	Development and deployment of recycling equipment for preliminary treatment of fluorescent tubes	Recycle Headquarters, JFE Engineering JFE Kankyo
JFE Engineering: Award for Best Invention	Development of horizontal mechanical-type bicycle parking structure	Industrial Machinery Headquarters, JFE Engineering
Universal Shipbuilding: President's Award for Outstanding Performance in 2010	Massive improvement in earnings in FY2010	Keihin Shipyard, Universal Shipbuilding

External Awards

Prize/Award	Sponsors	Projects
Nikkei Global Environmental Technology Award 2010	Nikkei Inc.	Development of iron-ore sintering process using hydrogen gaseous fuel (JFE Steel)
Annual Ichimura Industrial Awards —Contribution Prize	The New Technology Development Foundation	Development of highly earthquake-resistant, high-strength steel for the safe, secure and resource-saving design and construction of super high-rise buildings (JFE Steel)
57th Okochi Memorial Prize	Okochi Memorial Foundation	Development of high-formability, high-strength steel sheets for automobiles through control of nano carbide (JFE Steel)
Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology (Development Category)	Ministry of Education, Culture, Sports, Science and Technology	Development of high-deformability, high-strength steel pipes (JFE Steel)
30th Engineering Award	Engineering Advancement Association of Japan*	Hyper 21 Stoker System (JFE Engineering) Steam Pipe Collaboration Project in Yako District, Chidori, Kawasaki City (JFE Engineering and others)
Infrastructure Technology Development Award	Japan Institute of Construction Engineering Coastal Development Institute of Technology	Long-term anti-corrosion system for jacket-type pier (JFE Engineering and others)
36th Environmental Devices Awards	The Japan Society of Industrial Machinery Manufacturers	High-efficiency power-generation system using digestion gas (JFE Engineering)
Ship of the Year	The Japan Society of Naval Architects and Ocean Engineers	"Shirase" icebreaker for Antarctic expeditions (Universal Shipbuilding)

* Changed to Engineering Advancement Association of Japan in April 2011



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1. Change to CSR Report

For the past several years JFE's CSR reporting has comprised an annual report-style, paper-based business report and also PDF-based environmental and social reports. In this fiscal year, however, the company has combined all or parts of these three documents into a single CSR report, making it easier for users to understand the overall picture of the company's sustainability activities. JFE has improved its CSR reporting over the years, first by expanding the extent and nature of environmental and social disclosure in the business report, and then by separating these parts into independent reports to provide more wide-ranging and detailed perspectives. Considering that this process of improvement has now evolved into a full CSR report, the success achieved so far deserves recognition.

As the world changes over to a more sustainable society, CSR-related programs are becoming more deeply involved with mainstream business strategies. It might be necessary for JFE to create an integrated reporting architecture to more accurately communicate how the company is actually meeting the CSR challenges its faces in its daily business operations.

2. Taking a Green Look at Value Chains

In the last few years, the trend in CSR management has been to encompass value chains end to end. The JFE Group has taken some impressive initiatives in its downstream value chains. For example, the group-wide lineup of eco-friendly products and services has expanded notably, including commercialization of energy- and resource-saving technologies, such as JFE Steel's

highly functional steel products, JFE Engineering's solar heat-generation plant, geothermal-utilizing system and super rapid charger; Universal Shipbuilding's super energy-efficient vessels; and biodiversity-protection technologies such as JFE Steel's Marine Block and JFE Engineering's ballast-water management system. Venous businesses such as consumer appliance and PET bottle recycling are significantly strengthening the environmental profile of the JFE Group's value chains, while transfers of energy-saving and CO₂-reducing technologies to emerging and developing countries are helping to reduce climate-change loads on a global scale.

Positive developments are also evident in Group business. JFE Steel, the core of the JFE Group, set medium-term targets for reduced energy consumption and CO₂ emissions based on the voluntary action plan of the Japan Iron and Steel Federation, and also achieved its own CO₂ emissions-reduction target on an independent basis.

The report quantifies energy consumption rate by unit of energy, a measure unaffected by production volume, but the voluntary action plan sets energy-consumption targets based on total consumption volume, so there is some confusion as to which indicator should be used to evaluate results.

3. Other Achievements and Issues

JFE Steel's supply of electricity following the March 11 earthquake attracted attention by epitomizing the useful social contributions that can be made by steel manufacturers. In addition, the company added a grade-style evaluation column to its chart of Priority Environmental Targets and Results, making it easier to understand the level of progress achieved. The release of job-turnover data is a long stride forward in terms of employment-related disclosure. Nevertheless, the employment rate for people with disabilities at Universal Shipbuilding remains below the statutory rate, a cause for some concern, but I look forward to the situation improving as the result of a special subsidiary established this fiscal year. Also, I appreciate that JFE Chemical introduced an effective solution to begin measuring dust. That said, the situation highlighted once again the need for not only antimonopoly practices but also a stronger overall compliance system. Stronger efforts are required.

We received many valuable responses to last fiscal year's CSR report (environmental and social report). Here, we will introduce some of the opinions and thoughts of our readers.

Opinions

I enjoyed the story about the Marine Block for coral. I think that applying the your company's technology toward environmental preservation and restoration is a very good way of doing things. I would like you to continue such activities in the future.

From the Editing Department

The JFE Group not only strives to reduce the environmental impact of manufacturing activities, it also contributes along its entire value chain, including through technologies and products. Along with development of the Marine Block, green efforts involving technologies and operating businesses include recycling (P49–50), the Green Project (P17–19), and the ballast-water treatment system (P20). Environmental impact-reduction activities also are being conducted overseas through transfer of technology, mainly to emerging and developing countries. Such activities will be continued on a global scale.

I wanted to find out more about the details of your technology for recycling and other activities.

The JFE Group issued a declaration this year regarding recycling (P49–50). Only a small fraction is shown in the report, but information appears in greater detail on our website.

WEB Recycling used plastic at JFE Steel:
www.jfe-steel.co.jp/recycle (Japanese only)
 Waste recycling services of JFE Engineering:
www.jfe-eng.co.jp/product/recycle/recycle7100.html (Japanese only)

It was difficult to obtain a grasp how you are trying to define and promote CSR. The message from the president in particular seemed just to highlight business results, and it made me wonder if he was being sincere. I cannot understand the intentions behind your efforts.

We decided to prepare a separate CSR report from this year to clarify our endeavors and attitudes toward CSR. The message from the president also conveys our policies, attitudes, and targets regarding CSR, which we believe will enable stakeholders to obtain a better understanding of specific efforts being made in accordance with these policies, including results and achievements, as well as future issues and measures.

Publicizing information has made it more apparent that the group is striving to fulfill its mission, which I praise. If possible, I would like the information to be released publicly not only in PDF format, but also on your website for easy perusal.

Our environmental and social reports are available not only as PDF files, but also on our website in HTML to allow people to learn about the JFE Group's activities.

WEB CSR (social/environmental):
www.jfe-holdings.co.jp/en/environment

Editorial Note

Until last year, the JFE Group Management Report included a section covering environmental and social issues, but as of this fiscal year an independent CSR report has been issued to provide greater detail about our activities.

This new CSR report, with its section of special features, enables readers to attain information on the JFE Group's environmental and social endeavors in a timely and easy-to-understand manner. The president's message lays out the philosophy of top management on environmental and social issues as a commitment to all stakeholders.

In addition, opinions from readers are provided at the end of the booklet, and we intend to respond to many of the opinions expressed to us. Furthermore, although we have begun providing environmental data, it can be viewed only on the Internet, and a variety of other information could not be published in this report due to space limitations.

The JFE Group CSR Report is a new endeavor beginning from this fiscal year. We look forward to hearing the opinions of third parties and general readers, which will help us develop even more comprehensive reports in the future.

Front cover



Tokyo Sky Tree® built with high-performance construction steel (P. 11)



Demonstration plant for solar energy power generation system (P. 17)



Ore tanker equipped with multiple energy-saving devices (P. 48)



Regenerated coral reefs using Marine Block® (P. 21, 22)

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