

JX Nippon Oil & Energy 2012 CSR Report



The Future of Energy, Resources and Materials
JX Nippon Oil & Energy

Contents

● Message from the President	1
● Promises to the Future Part 1	3
● Promises to the Future Part 2	8
● Management Report	
▶ JX Nippon Oil & Energy's CSR	12
▶ Corporate Governance and Internal Control	15
▶ Compliance	16
▶ Risk Management	18
▶ Crisis Management	19
▶ Safety Measures	21
▶ Information Security	26
▶ The Great East Japan Earthquake – Impacts and Response	27
● Corporate Citizenship Report	
▶ Customer Relations	29
▶ Providing Products and Services Beneficial to Our Customers	30
▶ Quality Assurance	32
▶ Pursuing Safety and Compliance for Quality Reassurance	36
▶ Social Engagement	39
▶ Advancement of Sports and Culture	40
▶ Next Generation Development and Support	42
▶ Environmental Protection	45
▶ Community Engagement and Disaster Relief	50
▶ Volunteer Activities	52
▶ Employee Engagement	54
▶ Providing Workplaces where Employees can Thrive	55
▶ Providing Employee-friendly Workplaces	59
▶ Human Rights Initiatives	62
● Environmental Report	
▶ Environmental Management	63
▶ Global Warming Prevention Measures	65
▶ Biodiversity Preservation Measures	69
▶ Activities for Reducing Our Environmental Impacts	70
▶ Developing and Supplying Environmentally-Friendly Products and Services	84
● Editorial Policy for the 2012 CSR Report	86

Message from the President



Message from the President

Supplying High Quality Energy Required by Society and Our Customers as One of the World's Leading Integrated Energy Companies

Seiichi Isshiki
President and Representative Director

The Global Energy Situation Continues to Change Drastically as We Enter an Era that Calls into Question Efficiency and Quality

In recent years, development of shale gas and shale oil has advanced mainly in North America, providing hope that we can postpone the depletion of oil resources for a considerable amount of time. Yet, it is also safe to say that world energy demand will continue to grow over the mid to long term, even if there are temporary slowdowns, driven by future population increases and economic growth. Moreover, the environment surrounding energy markets is undergoing great change. This is marked by growing momentum for renewable energy given heightened awareness around the world toward the environment and safety, continuing geopolitical risk due to instability in the Middle East, and in Japan greater interest in energy issues following the accident at the Fukushima Daiichi Nuclear Power Plant.

The era of abundant oil and uninterrupted electricity has ended. This is why the people and companies of energy-resource-poor Japan, in particular, must now make a change to ensure valuable resources are used more effectively. In that sense, today is a time when the quality of energy will be called into question.

Helping Build a Sustainable Society by Supplying High Quality Energy



The high quality energy I speak of means energy that is safe for the environment, sustainable and highly resilient to disasters. An example of this is the ENE-FARM residential-use fuel cell that we manufacture and sell. The market has responded quite favorably to ENE-FARM, but there are still many improvements that we need to make in terms of price, size and other matters. We are also taking steps to help build a society powered by hydrogen by constructing hydrogen filling stations as part of our joint effort with automakers to popularize fuel cell vehicles. Although such an effort will not bear fruit overnight, we recognize that if we do not get started now the future will be a different place.

Nevertheless, no matter how much we talk about a bright future, if we do not solidify our current business model of maintaining a network for providing stable supplies of petroleum to Japan, where demand is falling, we will never be able to achieve our vision for the future. Thus far, it feels like the energy business has made progress based on the rationale of the supply side. Yet, given society's growing interest in energy, going forward we will need to think from a more customer-centric viewpoint as an integrated energy company that can offer the right mix of various energy sources, such as coal, natural gas, new energy, and electricity, in addition to petroleum, in providing energy saving solutions for the home and industry.

As an energy company, advancing energy conservation efforts will result in fewer sales, but if we do not provide what our customers demand and what society needs, we will not be able to build a sustainable society, nor become a sustainable company ourselves.

Aiming to Provide an Energy Hub for Resident-oriented Smart Communities

As one means to more effectively utilize energy in our everyday lives, we began the “Dr. Ouchi-no Energy” program, which proposes energy saving solutions based on an evaluation of a home’s energy use that can be implemented while maintaining a comfortable standard of living (<http://www.noe.jx-group.co.jp/lande/product/doctor/index.html>) *1. In addition, using the lessons learned from the Great East Japan Earthquake, we will be testing a new type of earthquake-ready service station in 12 locations on the Pacific Ocean side of Japan from Tohoku to Kyushu, starting from disaster-stricken Ishinomaki City. These testing grounds will also feature photovoltaic panels, enabling them to serve not only as an energy hub for surrounding communities in the event of a disaster like an earthquake or tsunami, but also as an evacuation site for local residents. We hope that these efforts will soon mark the beginning of energy diversified smart communities where energy created in the local community can be used by the local community as well as utilized to help these neighborhoods survive independently during a disaster.

Today, Japan has seen a rise in the number of single-person households, and in particular the number of elderly that live alone. As such, we would like to be involved in building smart communities that are friendly and resident-oriented by using our networks with various other sectors, including housing.

How to Become a Company that Considers Each and Every Stakeholders’ Best Interests

When looking at the existence of a company, I believe the most valuable aspect to consider is the viewpoint of delivering happiness to people. These “people” are often known as “stakeholder”, such as shareholders, customers and employees. The key, however, is whether those associated with a company have been made happy or not. I believe that we have entered a time period where a company can no longer exist without thinking in this way.

The JX Group Values, or “EARTH”², serve as a beacon for us in this regard. Each of our employees checks on a daily basis to see if their actions comply with the five “EARTH” values. This quiet dedication is what enables us to achieve our visions and become a good corporate citizen that delivers happiness to all of its stakeholders. I, too, give my best efforts day in and day out toward this aim.

An energy company like JX Nippon Oil & Energy must continually adapt to major changes taking place in society and quickly transform itself. In this regard, I would like all of our employees to continually take on new challenges with bold conviction under “EARTH”.

(Summary of in-house interview held in August 2012)

*1 The ENEOS energy consulting service that proposes ways to optimize energy use for the home started in June 2012.

*2 See below.

● JX Group Values

Our actions will respect the EARTH.

Ethics

Advanced ideas

Relationship with society

Trustworthy products/services

Harmony with the environment

Promises to the Future Part 1



Paving the Way for the Future of Energy as an Integrated Energy Company

Ever since the Great East Japan Earthquake and nuclear accident, society has continued to show stronger and stronger interest in both energy that is safe and environmentally-friendly and energy that is sustainable and resilient in the face of natural disasters.

The JX Nippon Oil & Energy Group's commitment to society can be found in the creation and supply of new, next generation energies that fulfill the needs of our customers and society as a whole.

ENEOS SOENE Business – Helping to Establish a Sustainable Society

JX Nippon Oil & Energy is advancing the ENEOS SOENE business at the same time as providing stable supplies of today's core energy source of petroleum in order to foster a brighter future for energy. To that end, we have identified three key pillars for this business. "SHO-ENE", which means to use energy efficiency and economically as well as maximize natural resources, "SAI-ENE", which means to produce renewable energy that plays a key role in the sustainable society of tomorrow, and "JIRITSU", which means the ability to be energy self-sufficient even when social infrastructure is damaged due to natural disasters or other events. Under these three pillars, we are taking a multifaceted approach toward the future of energy to capture the changing needs of our customers and society and to meet their demanding expectations.



SOENE House – site of verification testing for the ENEOS SOENE business

SHO-ENE—Eliminating Waste to Use Energy Efficiently and Economically

"ENE-FARM" residential fuel cells create electricity using hydrogen generated from gas. In turn, the heat from this process is used to heat water. A single ENE-FARM system can generate around 70%^{*1} of the electricity needs of a normal house. This system also helps to reduce energy loss during the transmission of electricity from power plants because electricity is generated and used at the same location. An ENE-FARM system can reduce CO₂ emissions by as much as 43%^{*2} annually compared to conventional systems because it uses heat from the power generation process to economically heat water.

To make the home more energy efficient, first we need to understand how energy is being used. Our Dr. Ouchi-no Energy program, which is a household energy consulting service, plays a key role in this process. Essentially, we can determine how energy is being used in a home and then provide advice on the best way to make that particular home more energy efficient. For example, this includes installing renewable energy devices, improving the home's performance, or replacing appliances with more energy efficient models, to meet the needs of each home.

To provide this service across Japan, we have established a target to deploy some 1,000 energy consultants nationwide by the end of fiscal 2013.



An ENE-FARM residential use fuel cell system

*1: JX Nippon Oil & Energy estimation model (single-family detached home with a family of four that uses 450kWh/month of electricity and 1,200MJ/month of hot water). However, the energy usage of each home differs.

*2: In a comparison with electricity generated by a thermal power plant and conventional water heater using utility gas. This percentage is 37% when compared to LP gas.



Raising awareness towards energy efficiency with the ENE WINDOW, which provides information on energy usage and generating amounts using easy-to-understand illustrations and data.

● **Working as a Home Doctor that Diagnoses and Optimizes the Energy Use of Homes**

Our customer’s awareness towards energy efficiency has risen as a result of the nuclear accident following the earthquake and tsunami as well as electricity price hikes. However, many customers have no means of knowing how to improve their energy efficiency and desire an advisor that will explain the knowledge and information needed to be more energy efficient. Through our Dr. Ouchi-no Energy program, consultants visit homes to introduce energy efficient devices, such as ENE-FARM residential use fuel cells, and better ways to use energy after an initial diagnosis. Our customers have had nothing but good things to say about this service and so I hope to continue promoting this initiative because it makes important contributions to our natural environment.



Shouji Nishikawa
Household Energy Consulting
Group System Integration Business
Department
JX Nippon Oil & Energy

SAI-ENE—Creating Sustainable Energy for a Low-carbon Society

Photovoltaic power generation is among the fast growing renewable energies today. JX Nippon Oil & Energy offers the “ene SOLAR Koko Eco” unit photovoltaic power generation system for the home as well as apartment buildings. We are also involved in mega solar projects with a power output of more than 1,000kW.

In January and March 2013, we launched mega solar power plant projects at our Sendai Refinery and Kudamatsu Terminal utilizing idled land. At our Sendai Refinery, we are aiming to build a photovoltaic power generation system that can also supply electricity to surrounding communities (up to 50kW) during a major power outage.



A photovoltaic power generation system installed atop an apartment building

Jiritsu—Creating and Storing Energy Independently to Achieve Energy Self-sufficiency

Systems that are energy self-sufficient and independent of the power grid have received a great deal of interest following the Great East Japan Earthquake.

JX Nippon Oil & Energy's independent energy system is a combination of ENE-FARM residential use fuel cells, photovoltaic power generation system and storage batteries. This combination of three batteries improves the energy self-sufficiency rate and can supply electricity in the event of a power outage.

Many tend to think that our ENE-FARM residential use fuel cell, photovoltaic power generation system and storage batteries are intended for single-family detached homes, but we recently started a verification testing project called "ENEOS SOENE Renovation" at one of our company-owned apartment buildings to examine the viability of installing such an independent energy system either during the construction of a new multiunit building or on an existing multiunit building after renovations are done.



Verification testing on a SOENE plus renovation project at our Shiomidai company-owned apartments

Renovating a Traditional Japanese House with New Energy Solutions

Gifu Prefecture has been sponsoring the Next Generation Energy Infrastructure Project since 2009 in an attempt to establish next-generation energy infrastructure by finding the best mix of energy sources and new energy technologies. Of the five models, which include commercial facility, public facility, home, urban and hilly and mountainous area, JX Nippon Oil & Energy is responsible for exploring solutions in hilly and mountainous areas.

Utilizing a 100 year old traditional Japanese house, we installed a photovoltaic power generation system and employed a small hydroelectric generator using the surrounding topography. This system also includes a lithium ion storage battery and fuel cell, which makes it possible for the system to operate independently and provide a stable supply of electricity and hot water even during a power outage due to a natural disaster.

Through this initiative, we are exploring the potential of the most optimal energy solutions based on the configuration and location of each home.



Developing an optimized energy system by combining advanced energy solutions together on a single traditional Japanese home

Examining the Future of Energy Together with Stakeholders

Next Generation Service Stations and Infrastructure Supporting the Future of Automobile Society

Electric vehicles (EV) and fuel cell vehicles are widely considered to represent the future of the automobile as they produce zero CO₂ emissions. However, the next generation of automobiles cannot gain a foothold without the proper social infrastructure in place.

The first steps to create this infrastructure have already been taken as part of the Yokohama Smart City Project being implemented as one of the Fiscal 2011 Next Generation Energy and Social Systems Demonstration Projects sponsored by Japan's Ministry of Economy, Trade and Industry. Part of this project involves next generation service stations that are equipped with integrated storage and recharging systems to rapidly recharge multiple electric vehicles simultaneously. These service stations will also play a role in maintaining the energy supply-demand balance of the surrounding community. As part of this project, NEC is providing system development and implementation, Tokyo Institute of Technology is analyzing the contribution effect on surrounding communities, and JX Nippon Oil & Energy is responsible for pilot operations of the recharging station.

Some of the currently operational EV charging stations are moving forward with installation of photovoltaic power generation systems in order to use solar power to create electricity for rapid recharging.

Hydrogen stations, which are another example of next generation energy, supply hydrogen to fuel cell vehicles, and there are actually many different ways and methods to manufacture and supply hydrogen. We are currently involved in a realistic simulated verification testing project taking place in Yokohama, Tokyo and Kitakyushu in order to seek out ways to commercialize the hydrogen supply infrastructure of tomorrow. This project is called the Technical and Social Demonstration of Regional Hydrogen Supply Infrastructure.

Beginning in 2013, we are slated to launch a new type of verification testing where hydrogen supply units are installed at two existing service stations.



The solar panels and rapid recharging equipment for DD Energy Mall Yahata-Higashida Service Station

Leveraging Technology to Pave the Way for the Future of Energy

● ENEOS Lab – Joint Research Hub with the University of Tokyo

In February 2009, we established ENEOS Lab as a joint research hub with the University of Tokyo's Research Center for Advanced Science and Technology in order to develop revolutionary new energy technologies and specialty chemicals. This lab is moving forward with globally cutting edge research that requires joint efforts with the university.

The lab is currently looking into organic photovoltaic cells, storage batteries and specialty chemicals and how they can be used in nationally sponsored projects. It also plans on expanding its scope to include hydrogen related fields.



The Environmental Energy Research Building was newly constructed in fiscal 2011 to house the ENEOS Lab

● Technological Development Supporting a Sustainable Society

A wide range of innovations are still needed in order to achieve the vision of a sustainable society. The JX Nippon Oil & Energy Group is working on the development of materials for biofuels and environmental performance, including "SUSTINA", an engine oil product series that improve fuel economy and maximizes engine performance.

Recognizing that establishing a track record in superior new technologies will help build a sustainable society, we are currently engaged in the research and development of new customer-friendly products, services and technologies that meet the energy needs of tomorrow's society.



The ENEOS SUSTINA series of engine oil products also includes automatic transmission and continuously variable transmission fluids.

Promises to the Future Part 2



The Great East Japan Earthquake that struck on March 11, 2011 caused extensive damage to many of the JX Nippon Oil & Energy Group's production and distribution sites, including the Sendai Refinery, which led to a temporary stoppage in our supply of energy. This created a new determination in Makoto Yamaguchi, General Manager of the Sendai Refinery, to fulfill our mission of delivering a stable supply of energy to our customers no matter the situation. Below, he shares the processes involved from earthquake to relaunch as well as the refinery's initiatives for the future.

March 11, 2011 – The Day the Energy Supply Stopped

The Sendai Refinery stands as our petroleum refining and distribution base for the Tohoku region. The Great East Japan Earthquake struck this facility without mercy as we felt shaking like never before. My first worry was whether our equipment was safely shutdown or if any fires would be caused, but the automatic stoppage system worked perfectly, with all of the machinery and equipment at the refinery shutting down safely.

Thirty minutes after the earthquake, we learned that a warning had been issued saying a more than 10-meter high tsunami would hit the Port of Sendai at 3:40pm. I could not believe what I was hearing. A more than 10-meter high tsunami was unimaginable. Immediately after this I received a report from our construction partner company that all employees had gathered on the grounds in accordance with the disaster preparedness manual. Without hesitation I ordered everyone to evacuate to higher ground away from the refinery. Although everything had been shut down, there were still operators checking the condition of equipment and machinery, so I quickly conveyed the order to evacuate and had them go to leave what they are doing and evacuate to the top floor of the refinery. At approximately 3:50pm a tsunami between 2.5 meters and 3.5 meters high struck, flooding the entire refinery. I could not believe my own eyes. Cars were tossed around and floated away like leaves in a river.

By then, the entire refinery had been damaged, rendering all facilities in-operational, from manufacturing to shipment.

Moreover, during the night a fire started near our truck shipment terminal and burned for four days straight. I really regret all the trouble and worries that we caused not only surrounding communities, but also everyone involved with the refinery.

Unfortunately, four people from our partner companies lost their lives during the tsunami. These individuals were frantically working to untie a crude oil tanker from the refinery's pier prior to the arrival of the tsunami. By far this saddens me the most about the events of that day. I offer my condolences to their families and hope that they rest in peace.

We Could Not Have Restored Operations Without Our Stakeholders' Help

On the morning of March 15 we received a request from Miyagi Prefecture Governor Murai to deliver petroleum products. While we had inventory thanks to the fact that the refinery's tanks suffered only minor damage, our tank truck loading facilities were completely obliterated in the tsunami and fire. Massive damages were also incurred not only within the refinery itself but also along the surrounding roads, making shipments impossible. To overcome this situation and deliver much-needed petroleum products to disaster-stricken areas, first we proposed shipping our products in drum cans. Under the strong leadership of the governor, sinkholes in the surrounding roads were repaired, while we cleaned up the refinery's roads that had been covered with sediment as well as the vehicles that had been scattered here and there. We then received approval for shipment without markers to prevent tax evasion and requested the Japan Self Defense Force to help deliver the drums. The prefectural government's quick response meant that we were able to ship about 1,000 drum cans to disaster-stricken areas just three days after the quake and tsunami.

Following this, recovery work at the refinery continued day and night. We came up with a plan to move offloading equipment from the Asaka Depot (Saitama Prefecture) and Matsumoto Depot (Nagano Prefecture) to ensure that we could quickly restart large shipments using tanker trucks. The same workers that disassembled this equipment at the oil depots came to the Sendai Refinery to assemble it, so we were able to complete this process in only two weeks time. On May 3 we began operating this tank truck loading facility. We greatly regretted the fact that we could not fulfill our mission to deliver petroleum products to people in disaster-stricken areas as the only refinery in the Tohoku region, causing huge lines at service stations. This regret made the restart of tanker truck shipments on that day a very satisfying milestone.

Later, we created a master plan for the recovery work at the refinery and launched a project team consisting of members from the head office and other refineries. Our employees and the employees of our partner companies worked closely together on each and every issue. By November we had restarted shipments of asphalt and LPG as well as boosted our shipment capacity of fuel oil. Then, on March 9, 2012, almost one year after the quake, we were able to restart production.

During that time, regulatory agencies and the government sped up approval processes and provided a huge amount of assistance and support. I am very grateful for this.

I would also like to express my deepest thanks to local community members for their understanding during this time. From before the quake, one of our most important goals was to engage local communities under the motto of living together. This incident once again made me feel keenly aware of the importance of these efforts.

I fully believe that we would not have been able to restore our operations like we did without the support of our stakeholders, including local governments, local community members and the employees of our partner companies.



Heating oil and gas oil being shipped in drum cans using Japan Self Defense Force trucks



The temporary loading facility completed in just two weeks

99% Not Enough, 100% Guaranteed Supply Needed

Petroleum is an essential commodity for our society. This is why providing a 99% guaranteed supply is not enough. I have once again found that failure to provide this essential commodity, even in small amounts, can lead to life threatening situations if not delivered where it is needed. Based on the lessons learned from the Great East Japan Earthquake, we are implementing a wide range of basic measures to safeguard human life, minimize damage to equipment and avoid long-term shutdowns.

First, we reconstructed our refinery offices so that they can withstand a 10-meter high tsunami and be used as an evacuation site at the same time. We also installed signboards showing how to access the staircase on oil tanks to ensure that employees can evacuate if they do not have time to get to the refinery's offices before a tsunami strikes.

To prevent extended operational shutdowns, we reinstalled equipment that caused a major hindrance to restoring refinery operations due to flooding, such as electronic devices, on the second floor, and improved the water-tightness of buildings. We also relocated our tank truck loading facility from the western area of the refinery to the east where the elevation is higher.

Furthermore, we installed a photovoltaic power generation system, fuel cell, storage battery and generator for our refinery offices to boost our ability to withstand disasters and now have facilities in place to fill drum cans for shipments during an emergency.

Going forward, the Sendai Refinery stands fully committed to being in harmony with the local community and fulfilling its mission to provide stable supplies of the energy essential to our daily lives, no matter the situation.



Signboard showing how to access the staircase to ensure swift tsunami evacuations



A bridge constructed between the west and east sides of the refinery to ensure tank trucks enter and exit the refinery without passing through the nearby residential area

● **Creating Service Stations that Help Support Local Communities during a Disaster**

A New Type of Earthquake-ready Service Station Opens in Ishinomaki City, Miyagi Prefecture

We plan to utilize ENEOS service stations in future disasters based on the lessons learned from the Great East Japan Earthquake.

A new type of earthquake-ready service station features a strengthened roof and facilities that are more earthquake-resistant watertight than before as well as an evacuation space for tsunami. The first of these earthquake-ready service stations was constructed in Ishinomaki City and features an emergency generator, fuel cells and photovoltaic power generation system to ensure that fuel dispensing equipment remains operational and energy can still be supplied during a disaster. In addition, the service station has stored bottled water and a well to supply water for sanitation purposes. This means it will serve as a lifeline to the local community in the event of a disaster.

We plan to construct 12 of these earthquake-ready service stations along the Pacific Ocean side of Japan by fiscal 2013.



Opening of first new type of earthquake-ready service station in Ishinomaki City, Miyagi Prefecture



Enlarged canopy pillars and LED lighting



Rooftop space for temporary evacuation during a flood



Watertight fuel dispensing equipment



Water tank, generator and ENE-FARM

The JX Nippon Oil & Energy Group's Initiatives to Ensure a Stable Supply of Petroleum Products

The JX Nippon Oil & Energy Group accounts for a 35% share of Japan's fuel oil sales.

We stand committed to fulfilling our responsibility as an integrated energy company supporting Japan to deliver stable supplies of energy no matter the situation.

Logistics and Sales

There are a total of 11,700 ENEOS service stations located across Japan. Many of our service stations were damaged in the Great East Japan Earthquake, while our distribution network was also cut off. This caused a temporary backlog of our fuel deliveries to areas from the Tohoku region to the Kanto region.

Based on this experience, we are working to develop an emergency shipment and sales system, which includes verification testing on a new type of earthquake-ready service stations that can withstand the risks caused by damages from a regional disaster.



11,700
service stations

Refining, Production and Stockpiling

We operate refineries and plants at 11 sites in Japan.

During the Great East Japan Earthquake our Sendai Refinery and Kashima Refinery suffered extensive damages.

In June 2011, we were able to restart production activities at the Kashima Refinery, but it took nearly one year, or until March 2012, to accomplish the same recovery at the Sendai Refinery, which was even more damaged. The assistance and support of our stakeholders proved to be integral at both of these locations. We are currently in the process of developing a product supply system and mutual support system between refineries so that we are prepared for the next large-scale disaster if and when it strikes. We are also stockpiling crude oil and petroleum products at our refineries and oil stockpiling terminals to prepare for future disasters. JX Nippon Oil & Energy Staging Terminal Corporation's Kiire Terminal can hold crude oil reserves that are equivalent to two weeks' worth of the supply consumed by all of Japan.



11 sites

Procurement, Importing and Shipping

We are able to provide a stable supply of crude oil and petroleum products because we maintain positive relationships with oil producing countries and our overseas business partners. We also operate 24 very large crude carriers (VLCC) around the clock. Each can carry cargo equivalent to half a days' worth of the crude oil consumed by Japan. All of our VLCCs have double hull construction to prevent oil spills during an accident.



24 vessels

JX Nippon Oil & Energy's CSR

JX Group Mission Statement and JX Group Values

● JX Nippon Oil & Energy's Initiatives under "EARTH"

JX Nippon Oil & Energy engages in its corporate activities based on EARTH, the five values of "Ethics", "Advanced ideas", "Relationship with society", "Trustworthy products/services" and "Harmony with the environment", as well as in accordance with the JX Group Mission Statement of "contributing to the development of a sustainable economy and society through innovation in the areas of energy, resources and materials".

▶ JX Group Mission Statement (<http://www.hd.jx-group.co.jp/english/company/philosophy.html>)



Basic Policy on CSR and Promotion System

We have established CSR rules for fostering society's trust in the JX Nippon Oil & Energy Group and have created the following basic policy on CSR, priority fields and a promotion system in accordance with the JX Group Mission Statement.

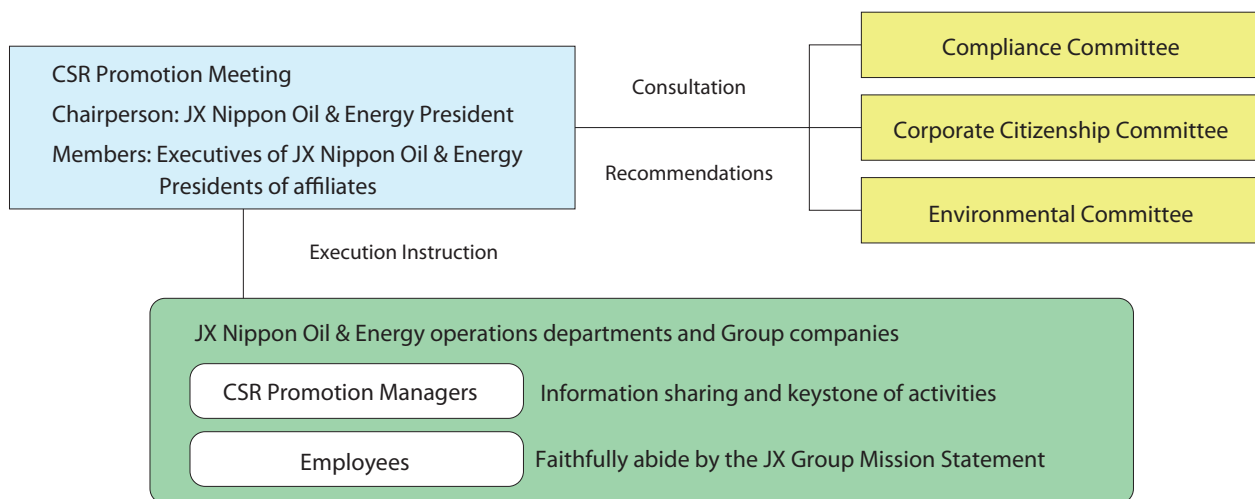
Basic Policy

The JX Nippon Oil & Energy Group will steadily fulfill its responsibilities to society by ensuring that each and every employee abides by the JX Group Mission Statement as part of its aim to become a corporate group of companies trusted by its stakeholders.

CSR Activity Priority Fields and Promotion System

The JX Nippon Oil & Energy Group has established "compliance (including information security and human rights)", "corporate citizenship" and "the environment" as the priority fields for its CSR activities.

We have established a CSR Promotion Meeting to oversee our CSR activities. This meeting includes the following three CSR committees that have been placed in a charge of each priority field respectively.



United Nations Global Compact

JX Nippon Oil & Energy supports the 10 principles on human rights, labor, the environment and anti-corruption advocated by the United Nations Global Compact. As a member of the Global Compact Japan Network, we are working to resolve international issues through our own business activities as well as to share the results of activities with other member companies and organizations.



The 10 Principles of the United Nations Global Compact

Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

Labour

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

The 10 Principles and JX Nippon Oil & Energy's Initiatives

● 4 Fields and 10 Principles

Human Rights

- Principle 1: Support human rights advocacy and respect human rights; and
- Principle 2: never be complicit in human rights abuses.

Labour Standards

- Principle 3: Uphold freedom of association and effectively recognize collective bargaining;
- Principle 4: eliminate all forms of forced labour;
- Principle 5: effectively abolish child labour; and
- Principle 6: eliminate discrimination in employment and occupation.

The Environment

- Principle 7: Take precautionary approach to environmental challenges;
- Principle 8: take initiatives to promote greater environmental responsibility; and
- Principle 9: develop and diffuse environmentally friendly technologies.

Anti-corruption

- Principle 10: Work against corruption including extortion and bribery.

● Main Measures

- ▶ Respect for Human Rights (page 62)
- ▶ Encouragement of Human Rights Awareness (page 62)
- ▶ Providing Workplaces where Employees can Thrive (page 55)
- ▶ Business Ethics Training (page 17)
- ▶ Legal Compliance Status Checks (page 16)
- ▶ Providing Employee-friendly Workplaces (page 59)
- ▶ Providing Workplaces where Employees can Thrive (page 55)
- ▶ Environmental Management (page 63)
- ▶ Global Warming Prevention Measures (page 65)
- ▶ Biodiversity Preservation Measures (page 69)
- ▶ Activities for Reducing Our Environmental Impacts (page 70)
- ▶ Developing and Supply Environmentally-Friendly Products and Services (page 84)
- ▶ Business Ethics Training (page 17)
- ▶ Legal Compliance Status Checks (page 16)
- ▶ Whistle-blower System (page 16)

Corporate Governance and Internal Control

Please see the *Investor Relations* page on JX Holdings, Inc.'s website for information about our corporate governance and internal control systems.

☞ JX Holdings, Inc.'s page on corporate governance (<http://www.hd.jx-group.co.jp/ir/system/governance.html>)
(available only in Japanese)

Compliance

Legal Compliance Status Checks

Legal compliance status checks are performed annually at JX Nippon Oil & Energy Group companies and include interviews conducted by supervisors in each business division. This approach enables us to check whether company operations or employee actions are in line with laws and regulations. If any problems are found during the course of these inspections, we immediately take action to remedy the situation. Prior to these inspections, we study the laws and regulations that should be complied with during the execution of work duties and foster greater legal knowledge among our employees, which not only helps us prevent legal violations before they occur, but also helps foster and spread compliance awareness across the entire JX Nippon Oil & Energy Group.

In fiscal 2011, legal compliance status checks were held at all JX Nippon Oil & Energy Group sites both inside and outside of Japan as well as 25 designated affiliates between July and September.

At each site and affiliate, business operations were checked on a group basis. Problems found during the course of these checks will be resolved by creating and executing a response plan.

Whistle-blower System (Compliance Hotline)

A whistle-blowing hotline has been established both inside and outside the company to enable the employees of JX Nippon Oil & Energy (including contract, part-time and temporary workers) as well as the employees of its outsourcing and subcontracting partners to report legal violations. This is in addition to our system for employees to report such violations to managers for remedial action. We immediately investigate the facts behind all whistle-blower reports and if legal violations were found to have occurred, we take prompt steps to resolve the situation. Information related to whistle-blower reports is managed strictly as confidential information, while the names of the whistle-blower and employees involved in the response are only disclosed or provided to those protecting these individuals. Whistle-blowers are never subject to disadvantageous treatment for filing a report.

Training and Development

We organize training and development sessions on compliance and legal matters in order to foster greater awareness in each and every one of our employees to take responsibility in practicing good business ethics and compliance activities in their daily work duties.

Legal Affairs Training

We regularly hold training sessions for employees of the head office, research laboratory, branch offices, refineries, plants and group companies on a wide range of subject matter, including various laws such as Japan's Anti-Monopoly Act, the Act Against Delay in Payment of Subcontract Proceeds, etc., to Subcontractors, the Product Liability Act, and the Copyright Act as well as company rules and contracts, among others.

Intranet-based Training

(1) "Compliance Database" – A compilation of laws and operational guidelines

We have compiled a database that contains related laws for each operational genre as well as specific measures and points to consider when complying with these laws. This database is made available to all through the company's intranet system.

(2) e-Learning

We provide compulsory e-learning training programs on various laws and company rules over our intranet system for all employees to participate in.

(3) “The Fountain of Compliance Knowledge” – Legal Communication

We regularly publish a single A4-sized page that contains an easy-to-understand summary of company rules, social manners, current events and basic legal knowledge on our intranet system.

(4) “The Fundamentals of Contracts” – Compilation of Sample Contracts and Commentary

We have created a wide range of contract templates required for business purposes and commentary for each in order to help foster greater knowledge of business agreements and streamline operations. This collection of templates and commentary is made available to all employees through our intranet system.

Business Ethics Training

“Ethics” forms part of the JX Group Values because we believe that employees with highly esteemed ethics are essential to fulfilling our corporate social responsibilities.

To enhance our ethics, we need to identify what is correct and pursue the essence of things. This begins from the basic stance of questioning everything we do. That is, we question right and wrong in our daily work and ensure our employees take a resolute stance against problems, which enables us to fulfill the needs of society.

● Case Method Training

The JX Nippon Oil & Energy Group has created a business ethics training program with the cooperation of experts in business ethics that teaches using the case method. During this program, both executive officers and employees alike learn how to question their actions and their surroundings as well as strengthen their ability to make ethical decisions.

The program aims to foster correct ethical decision making in participants by identifying in advance the impact their actions during their daily work duties can have on our stakeholders. A group discussion format is used to encourage participants to share their true feelings and provide a platform for communication with their peers.

● Training Results and Future Initiatives

In fiscal 2011, we held a number of business ethics training sessions, including as part as rank-based training programs for promotions and also for employees on our production floor to help prevent corporate misconducts by sharing case studies. All told, 70 sessions were held for a total of 2,780 participants.

Participant feedback included, “I learned about the importance of going about work with an awareness of our stakeholders” and “I once again understood just how important ethics are to the continuity of our company. I will be constantly aware of this at work”. We are committed to continuing with our business ethics training sessions and creating more effective curriculum going forward.

Initiatives Targeting our Overseas Subsidiaries

Personnel from the head office visited our overseas subsidiaries in North America and Latin America in fiscal 2011 to check the status of compliance and provide guidance where necessary. In fiscal 2012, we plan on organizing the same compliance inspection program for our overseas subsidiaries in Europe and the Middle East.

Risk Management

JX Nippon Oil & Energy has developed a robust risk management system that is capable of foreseeing crisis management needs and potential risks in order to ensure that the company can provide society with stable supplies of the energy that is essential to our everyday lives.

▶ Crisis Management (page 19)

- Crisis and Emergency Response
- Comprehensive Disaster Preparedness Measures

▶ Safety Measures (page 21)

- Safety Policy and Examples of Safety Activities
- Industrial Injuries
- Measures Against Accidents and Problems

▶ Information Security (page 26)

- Five Basic Policies on Information Security

▶ The Great East Japan Earthquake – Impacts and Response (page 27)

- Extent of Damages
- Progress of Restoration and Rebuilding

Crisis Management

JX Nippon Oil & Energy has established a basic policy to continue to supply its products during a large-scale disaster and fulfill its corporate social responsibilities as a supplier of petroleum products essential to Japan's economy and consumer lifestyles and as business that makes wide-reaching contributions to society. To fulfill these critical responsibilities, we have established a comprehensive disaster preparedness system that includes a business continuity plan for the occurrence of a major earthquake directly below the Greater Tokyo Metropolitan Area or the spread of a new strain of influenza.

Crisis and Emergency Response

Daily preventive activities are fundamental to crisis management, and JX Nippon Oil & Energy strives to prevent accidents and problems before they occur by using operations manuals and training programs with an emphasis on compliance. We have also established a system that enables us to respond to a crisis or emergency in a timely and appropriate manner.

Our crisis management rules (see page 20) stipulate that a response headquarters led by the president or an executive granted the same authority whenever an incident occurs that significantly impacts the management of the company, such as disaster, accident or misconduct. Under these rules, the five points listed below will be followed as a basic response.

1. Priority must be given to protecting human life and/or the environment
2. Information must be conveyed in timely manner and centrally managed
3. Decide, implement and monitor the best solution as quickly as possible
4. Communicate smoothly and transparently
5. Prevent all reoccurrences

If an accident or problem does occur, we are ready to quickly announce details to the public through a news release or via our corporate website and to initiate all means necessary to prevent any and all reoccurrences.

Comprehensive Disaster Preparedness Measures

Earthquake Measures

We have created three scenarios for a major earthquake that strikes directly under the Greater Tokyo Metropolitan Area and have established a response plan for each.

1. Preliminary Preparation

We have a safety confirmation service covering all of our employees, stockpile emergency supplies, and conduct disaster response drills at our refineries.

We have also created a mutual support system linking our refineries and are also in the process of establishing an emergency transport and sales system for our petroleum products.

2. Post-quake Response

In the event a major earthquake with a seismic intensity of 6-weak or larger strikes, a disaster response headquarters led by the president will be set up immediately at the head office of JX Nippon Oil & Energy. This organization is in charge of (1) confirming the safety of employees and their families, (2) checking for damages at JX Nippon Oil & Energy facilities, and (3) accommodating emergency demand for products from rescue activities implemented by the national government and local governments.

3. Response during the Recovery Effort

During this stage, a recovery response headquarters will be established that is placed in charge of (1) quickly establishing a product supply system, (2) providing support for employees affected by the disaster and to society, and (3) releasing information to stakeholders.

We have formulated a new basic policy on earthquake and tsunami measures given the challenges that arose during the repeated disaster response activities implemented in the wake of the Great East Japan Earthquake. Under this policy, measures to safeguard human life will be implemented, regardless of probability, while other measures will be implemented in consideration of the probability and scale of damages.

Measures Against New Strains of Influenza

We have prepared a manual called *Response Guidelines for New Strains of Influenza* in order to be prepared to deal with the threat of a possible pandemic of a highly-pathogenic avian influenza that begins in Southeast Asia.

Currently, we are creating an in-house framework and working on formulating our response to a pandemic to ensure that we will be able to provide stable supplies of petroleum products and LP gas.

Crisis Management Rules

1. Either of the following situations that require a company-wide response shall be considered an emergency situation.
 - (1) Situations in which people suffer damages or might suffer damages
 - (2) Situations in which significant damage is caused or may be caused to a third party's property
 - (3) Situations in which the management of the company is significantly impacted or might be significantly impacted due to the nature, scale, urgency or societal interest of the situation
2. If an emergency situation occurs, the person in charge of the location where the situation occurred will immediately report to the President through the General Manager of the General Administration Department.
3. After receiving this report, the President will establish a response headquarters led by the himself/herself or an executive granted the same authority. This organization will lead the company's emergency response.
4. The response headquarters will centrally manage all information related to the emergency situation as well as determine and order measures to be executed. It will also investigate the cause(s) and take steps to prevent any and all reoccurrences.

Safety Measures

Our safety philosophy states “We will give top priority to safety in all of our business activities”. Under this commitment, we are working to eliminate industrial injuries by initiating various safety measures and offering safety training for all of our employees, including those of our partner companies.

We have also implemented measures at our refineries, plants and stockpiling terminals to prevent accidents as well as launched an operational reform initiative at our refineries and plants to reduce potential equipment problems.



**JX Nippon Oil & Energy Group
Safety Philosophy**

We will give top priority to safety in all of our business activities.

1. We recognize that ensuring safety represents one of the company’s most important social responsibilities and is critical to the jobs of each and every one of our employees.
2. We will implement effective safety activities under the strong conviction that all accidents are preventable.
3. We will utilize the most advanced technologies, acquire the most advanced skills and cultivate a solid awareness necessary for ensuring safety.

JX Nippon Oil & Energy

Safety Policy and Examples of Safety Activities

Every fiscal year each of our divisions formulate key targets based on the JX Nippon Oil & Energy Group Safety Philosophy in order to implement safety activities to prevent accidents and injuries before they happen.

● JX Nippon Oil & Energy Group Safety Policy for Fiscal 2012

■ Follow the basic policy below in order to eliminate all accidents and industrial injuries.

1. Thoroughly abide by all rules

Following all rules represents the ironclad law behind the execution of one’s work duties and as such all employees must thoroughly abide by laws, guidelines and procedural manuals on safety.

2. Rest assuredly implement all safety activities

All safety activities must be implemented fully and the plan-do-check-action (PDCA) cycle must be used for safety management.

3. Enhance crisis management capabilities

All possible preparations must be made during normal conditions to ensure that the company can deal with all expected threats and risks if and when they arise.

Enhancing Safety Management

We operate our refineries and plants each and every day with a particular emphasis on our safety philosophy that states safety is the top priority in all of our business activities.

Under our safety policy that emphasizes “rest assuredly implement all safety activities”, we take various preventive approaches to safety that include safety meetings, activities to detect possible dangers, and activities to prevent human errors, all in order to eliminate industrial injuries.



A workplace discussion on safety

These measures are being promoted in unison by employees of our operating and engineering divisions as well as the employees of our partner companies.



Safety check before work

Occurrences of Industrial Injuries

The following chart shows occurrences of industrial injuries at our refineries and plants over the previous four fiscal years.

Number of Industrial Injuries per Fiscal Year

	Lost Worktime	No Lost Worktime
Fiscal 2008	3	9
Fiscal 2009	2	13
Fiscal 2010	1	20
Fiscal 2011	4	11

Measures to Cope with Accidents and Problems

Disaster Prevention Facilities

We have installed a wide range of disaster prevention facilities and developed measures at our refineries, plants and stockpiling terminals in order to prepare ourselves for potential accidents or disasters.

Oil Spills

We are able to quickly respond to any oil leak, either on land or at sea. This is because we have multiple oil dikes surrounding our storage tanks and if a tank were to spring an oil leak, we have a system in place to stop the leak from spreading offsite. We also have oil fences and oil recovery vessels in place to respond to oil leaks at sea.



Extending an oil fence as part of a drill to stop marine pollution

Fires

Refineries that handle dangerous substances or high pressure gas also have large ladder trucks with hazardous material response capabilities, compressed air foam system (CAFS) tankers, high capacity water cannons, foam extinguishing systems, sprinkler systems, and large extinguishers onsite. In addition, these facilities also have disaster response vessels with firefighting capabilities to respond to accidents or disasters at sea.



Ladder trucks at a refinery

Mutual Assistance System for Refineries

We have established a system with emergency response measures to enable organized support within the JX Nippon Oil & Energy Group during situations where single or multiple refineries are damaged in a major earthquake. This system ensures that we can execute a fast and agile response.

Disaster Drills

Comprehensive Disaster Drill

We hold comprehensive disaster drills regularly that involve our own disaster response organization to ensure that we can respond in a quick and agile manner should an actual accident or disaster strike. We also hold several other drills, including joint disaster preparedness drills involving joint disaster response organizations that include local fire departments and companies.



Firefighting during a comprehensive disaster drill

We are working to enhance or crisis management capabilities and collaboration with local communities to prepare for potential disasters.



Disaster training involving local community members

Initiatives at JX Nippon Oil & Energy Staging Terminal Corporation

The Kiire Terminal receives and ships crude oil as the JX Nippon Oil & Energy Group's front line storage terminal in Japan. It serves as a hub at the terminus of an "oil road" that connects oil producing countries to our refineries, with some 500 oil tankers entering and departing its port every year. We focus a great deal of our energy on ensuring safety both at sea and on land to maintain the smooth flow of traffic on this oil road.

We hold more than 300 disaster drills each year in order to prepare for potential disasters and guarantee safety, under the slogan "Safety is not complete or possible in the real world without a score of 120". These drills are held on a standalone basis at the Kiire Terminal and jointly with local governments, agencies and community members. Going forward, we will continue to strengthen collaboration with local community members and establish a system that ensures we can immediately respond in the event of a disaster.

● Firefighting Skills Competitions

Our employees proactively take part in firefighting skills competitions organized by fire departments to maintain and enhance their abilities as part of their commitment to be prepared in the event of an accident or disaster.



A skills competition held at the Negishi Refinery

● Site Visits to Firefighting Drills

Employees in charge of the initial response to a disaster visit the Maritime Disaster Prevention Center to observe firefighting training drills for industrial complexes. During their visit, they learn about the correct initial response and firefighting strategies.

● Communications Training

JX Nippon Oil & Energy Group refineries, plants and stockpiling terminals regularly hold drills conducted using real time simulations in order to prepare them to disclose information on changing conditions following an accident or disaster to the media and stakeholders in an appropriate manner.

During communications training, employees act as reporters or local community members to prepare our response team to handle telephone enquiries and press conferences in the event of a disaster. This training helps us to identify challenges and take steps to make improvements prior to an actual accident or disaster occurring.



Response headquarters during the communications training drill

Information Security

In accordance with the following five basic policies on corporate information security outlined below, information security at JX Nippon Oil & Energy involves the prevention of improper access, disclosure or divulcation of corporate information, which is an important corporate asset, and the protection of corporate information against illegal access both from within and outside the company. This enables us to maintain corporate information in a complete and secure manner as well as provide approved users access to this corporate information whenever it may be needed.

We have also enacted the JX Nippon Oil & Energy Privacy Policy as a basic policy governing our protection of personal information.

The Five Basic Policies on Corporate Information Security

1. Recognize that corporate information is an important asset

We recognize that corporate information is an important asset and as such we will strive to prevent illegal access from or divulcation to parties outside the company as well as maintain a condition where corporate information can be used appropriately.

2. Respect the rights of individuals

We respect the privacy of individuals and make sure that information on executives, employees or customers cannot be accessed without the permission of the manager in charge of such information.

3. Comply with all relevant laws and ordinances

We comply with all relevant laws, ordinances and company rules on the usage and disclosure of corporate information.

4. Carefully consider the interests of stakeholders

We manage corporate information in an appropriate and beneficial manner in careful consideration of the interests of shareholders, investors, financial institutions, consumers and business partners.

5. Conduct appropriate public relations activities

We conduct appropriate public relations when needed both within and outside the company in order to prevent misinformation or reputational risk.

In fiscal 2011, we distributed a guidebook on information security and organized an e-learning program in order to foster greater awareness and knowledge of information security among each and every one of our employees. In fiscal 2012, we will continue with similar training activities.

The Great East Japan Earthquake – Impacts and Response

Extent of Damages

The JX Nippon Oil & Energy Group suffered unprecedented damages to its petroleum product supply infrastructure as a result of the Great East Japan Earthquake. This included the shutdown of the Sendai, Kashima and Negishi refineries, damages to oil depots and service stations situated along Japan's Pacific Coast, and the loss of a large number of tank trucks.

Moreover, interruptions in the supply chain, including road and rail routes, temporarily cut off disaster-stricken areas from the delivery of petroleum products immediately following the earthquake and tsunami.

Primary Damages

● Sendai Refinery

Immediately after the earthquake: Shutdown of all equipment and facilities

Nearly all equipment and facilities damaged in the tsunami

A fire occurred at the tank truck loading facility in the western area of the site (fire extinguished on March 15, 2011)

● Kashima Refinery

Immediately after the earthquake: Shutdown of all equipment and facilities

Onsite roads and storage tanks damaged

Bridge and seawater pump station damaged in the tsunami

● Negishi Refinery

Immediately after the earthquake: Shutdown of all equipment and facilities

Production equipment suffered minor damages

● Kawasaki Plant

Immediately after the earthquake: Shutdown of all equipment and facilities

● Tohoku Branch Office

Immediately after the earthquake: Cutoff from all lifelines

● Oil depots and gas terminals

14 oil depots and gas terminals located along Japan's Pacific Coast suffered damages

● Service stations

Multiple service stations in the Tohoku region, Ibaraki Prefecture and Chiba Prefecture suffered damages

Multiple service stations in the Greater Tokyo Metropolitan Area were forced to close due to power outages and/or running out of inventory

Progress of Restoration and Rebuilding

We set up a disaster response headquarters immediately after the earthquake and quickly began to ascertain damages as well as launch the recovery effort. While giving utmost priority to supplying fuel to relief assistance vehicles and the disaster-stricken areas most in need, we collectively worked as a group to supply a stable flow of products to service stations, necessary fuel for relief work, and fuel for thermal power plants to make up for electricity shortages.

As a result of these efforts, we were able to begin providing stable supplies of our products to the disaster-stricken region at the beginning of April 2011.

In addition, we worked to restore and rebuild damaged refineries. Production was restored at the Kashima Refinery in June 2011 and operations returned to normal in November 2011. The Sendai Refinery was able to restart production in March 2012 after implementing measures under its restoration plan, which called for quickly restoring production, improving the refinery's response to disasters, and installing new, renewable energy power generation sources.

Emergency Supply Response / Progress of Restoration and Rebuilding

● Production system

- Muroran, Mizushima, Marifu, and Oita refineries fully operational
- Mizushima Refinery: Increased production capacity by 20,000 barrels a day (March 21, 2011)
- Negishi Refinery: Topper operations restarted (March 21, 2011)
- Kashima Refinery: Production restarted (June 4, 2011)
- Sendai Refinery: Production restarted (March 9, 2012)

● Supply system

- Products transported from the Mizushima, Marifu and Oita refineries to the Kanto region by tank truck
- Operations at 12 of the 14 oil depots and gas terminals damaged were restored provisionally, with shipments restarted sequentially thereafter
- Negishi Refinery: Transported products to Tohoku region on tank cars (railway)
- Osaka Refinery: Inventory meant for export shifted to domestic use and shipped
- Imported products from overseas
- Repositioned tank trucks from Western Japan and Hokkaido

● Sales system

- Implemented studies and repair work at all service stations in the Tohoku region and the Pacific Coast region of Ibaraki Prefecture and Chiba Prefecture aimed at the restoring facilities and equipment
- Ended closures of service stations due to inventory shortages (April, 11, 2011)
- Operations restarted at 95% of service stations in the Tohoku region, or 1,138 locations (April 14, 2011)

Customer Relations

Fundamental Approach

JX Nippon Oil & Energy constantly infuses its business activities with new ideas and stands committed to pioneering the future of energy for the benefit of its customers.

To act as a trusted as well as indispensable partner for our customers, we continually strive to improve the quality of our products and services and to fulfill society's expectations toward us.

▶ Providing Products and Services Beneficial to Our Customers (page 30)

- ENEOS SOENE Business
- Photovoltaic Power Generation Systems
- Multi energy service stations
- Customer-centric R&D

▶ Quality Assurance (page 32)

- JX Nippon Oil & Energy Policy on Quality
- Quality Assurance System
- Quality Control
- Quality Month
- List of ISO9001 Certified Sites
- Customer Service Center (Call ENEOS)

▶ Pursuing Safety and Compliance for Quality Reassurance (page 36)

- Quality Reassurance at JX Nippon Oil & Energy
- EU REACH Compliance
- GHS Compliance

Providing Products and Services Beneficial to Our Customers

We constantly infuse our business activities with new ideas and are committed to pioneering the future of energy and natural resources for the benefit of our customers.

ENEOS SOENE Business

JX Nippon Oil & Energy is advancing the ENEOS SOENE business to accommodate its customers' energy efficiency and renewable energy goals in line with the changing energy landscape. Based on the three pillars of "energy efficiency", "renewable energy" and "independence", this business focuses on the "ENE-FARM" residential-use fuel cell, which is highly energy efficient and does not require consumers to change their lifestyle, and the "SOENE House", which can generate its own energy even after a major earthquake. Going forward, we plan to expand the scope of the ENEOS SOENE business and its new and renewable energy systems to apartment buildings including employee housing. To that end, verification testing projects have already begun.

- ▶ ENE-FARM (<http://www.no.ejx-group.co.jp/lande/product/fuelcell/index.html>) (available only in Japanese)
- ▶ SOENE House (<http://www.no.ejx-group.co.jp/lande/product/soene/index.html>) (available only in Japanese)

Dr. Ouchi-no Energy

Dr. Ouchi-no Energy is a household energy consulting service, which proposes ways to optimize energy usage for the home, started in June 2012. This service uses an assessment to encourage the use of new energy devices best suited to each particular home, to promote energy efficient habits and to help improve overall energy performance.

- ▶ Dr. Ouchi-no Energy (<http://www.no.ejx-group.co.jp/lande/product/doctor/index.html>) (available only in Japanese)

Photovoltaic Power Generation Systems

As part of the "renewable energy" and "independence" pillars, JX Nippon Oil & Energy sells a wide range of photovoltaic power generation systems for homes, apartment buildings, public facilities as well as industrial applications, each of which has seen growing demand.

Following the launch of Japan's feed-in tariff program for renewable energy in July 2012, we are also making inroads into mega solar power generation projects.

- ▶ Photovoltaic power generation systems (<http://www.no.ejx-group.co.jp/lande/product/solar/index.html>) (available only in Japanese)

Multi Energy Service Stations

As part of its measures to establish a hydrogen supply infrastructure to help popularize fuel cell vehicles slated for launch in 2015, JX Nippon Oil & Energy is proposing the concept of a “multi energy service station” – an existing service station that has been fitted with hydrogen filling equipment. We envision that these multi energy service stations will supply fuel for every type of vehicle on the road, including gasoline, diesel, electricity and hydrogen. Electricity generated by a photovoltaic power generation system will be used to rapidly recharge electric vehicles, while biogasoline produced with a mix of bio-ETBE made from biomass will also be available. In addition to vehicle fuel, these multi energy service stations will also supply hydrogen from our refineries for use in the fuel cells of local households and businesses as well as purchase surplus renewable electricity generated in the local community for use in electric vehicles. These measures will help us coordinate a positive supply-demand balance, enable us to establish a foundation for the hydrogen supply business, and help promote the popularization of residential-use fuel cells.

Customer-centric R&D

As an integrated energy company, JX Nippon Oil & Energy is working to create new sources of energy as well as research and develop products and fuels that contribute to energy conservation in order to fulfill the needs of both customers and society alike.

- ▶ R&D (http://www.noe.jx-group.co.jp/english/company/research_and_development/index.html)

Quality Assurance

Today more than ever companies must have an unwavering commitment toward quality. JX Nippon Oil & Energy's fundamental approach and philosophy on quality assurance in the provision of products and services to its customers is outlined below.

JX Nippon Oil & Energy Policy on Quality

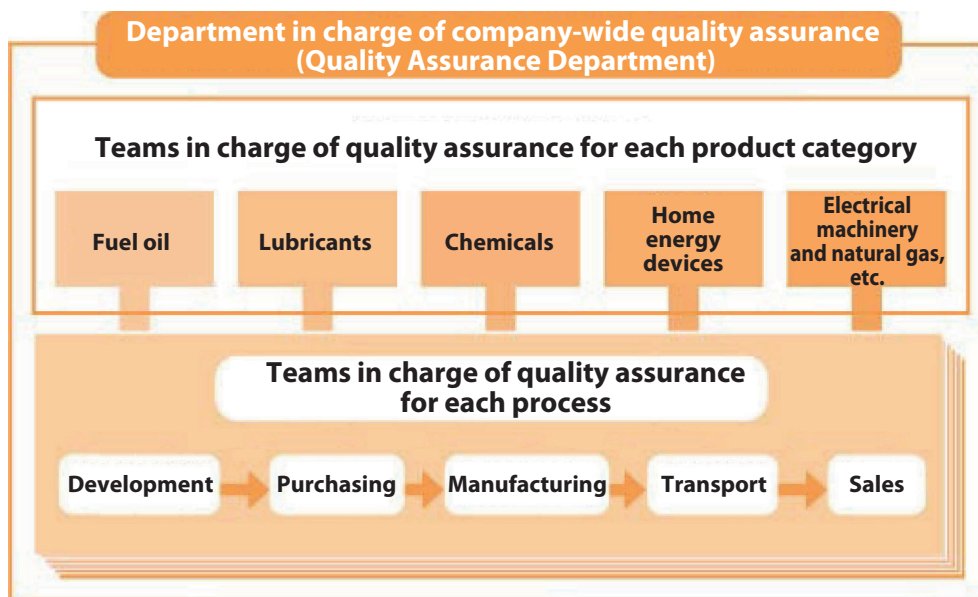
We take the following steps to ensure that we supply reliable products and services that satisfy each and every one of our customers.

1. We ascertain the requests and expectations of our customers and utilize these in our products and services.
2. We are considerate of the environment and safety as well as ensure the peace of mind of both society and our customers.
3. We strive to prevent quality complaints and troubles as well as continually take steps to maintain and improve quality.

Quality Assurance System

Under our policy on quality, the Quality Assurance Department monitors the entire company's quality assurance practices, while separate quality assurance teams have been set up to monitor quality control processes for each product category (by function). In addition to products manufactured in-house, a similar quality control system has also been laid out for both products purchased and bartered* from other companies to make doubly sure of their quality practices.

* Bartering here refers to the act of mutually trading products between petroleum distributors. This serves to reduce transport volume and in the process mitigate environmental impacts associated with the transport of these products.



Quality Control

Activities on the Production Floor

Our refineries and plants have initiated comprehensive activities aimed at eliminating quality complaints and troubles before they happen.

(1) Activities to share information on quality complaints or troubles across all departments

We have created a database on quality complaints and troubles that have occurred at our refineries and plants to share this information across all of these sites in order to prevent these issues from happening again.

(2) Activities to standardize work processes and technical standards

Through 5S activities (a workplace organization method focusing on sorting, setting in order, sweeping, standardizing and sustaining), we are promoting standardization and visualization in the workplace to prevent quality troubles before they occur.

We have established technical certification standards for examination and analysis operations to maintain and enhance the technical prowess of examiners as well as visualize their skill levels.

(3) Activities to inspect the quality control system

We inspect the quality control systems in place at our refineries and plants to identify and share their strengths and weaknesses, which in turn helps us improve quality control practices at each site.

We conduct special inspections on new processes whenever new unit is installed to mitigate risks associated with the occurrence of quality troubles.

Measures on the Frontlines of Logistics

We work together with our transportation partners to control quality, maintain safety as well as prevent mistakes throughout the entire logistics value chain, from product loading to final delivery.

One of our main activities is the use of "high-tech"* tank trucks equipped with state-of-the-art mixing prevention equipment to help eliminate accidents and troubles during delivery. We are also stepping up comprehensive onsite checks involving both customer and tank truck driver at the delivery site. During the ground transport of lubricant products we ensure that our customer and the driver double check the destination, product name, mode of packing, number of units and appearance at the time of delivery to prevent potential issues from arising.

Additionally, we have created detailed training manuals for tank truck drivers to promote full compliance with work procedures and safe operations.

* High tech tank trucks feature an onboard computer that monitors the type of petroleum for each hatch to prevent the possible mixing of products. At the time of delivery, the petroleum product key for the service station's fill port and cable from the truck's computer are connected, with offloading starting only after the petroleum product name has been verified.

Measures on the Frontlines of Sales

At service stations, where our products are delivered to end customers, we work together with service station operators to closely manage product quality and enhance customer satisfaction.

As part of our quality control practices, we utilize our service station facility safety inspection record sheets to perform daily, weekly and monthly inspections on service station facilities, including measuring devices and underground tanks, to ensure quality. We also hold training sessions to improve the knowledge and skills of employees in order to respond quickly and appropriately in the event of trouble.

To enhance customer satisfaction, we implement customer satisfaction training programs and perform customer-centric checks using mystery shoppers. Our latest mystery shopper survey conducted in fiscal 2011 targeted 4,521 service stations across Japan, with 3,034, or 67.1%, receiving the highest possible score of S/A.

Quality Month

Since 1968, we have designated each November as "Quality Month" as part of our commitment to "maintain a heightened awareness toward quality assurance and quality control across the entire company". During this month we also work together with our partner companies through a wide range of activities to enhance quality.

Theme for Fiscal 2011

Maximize Customer Satisfaction

Slogan for Fiscal 2011

Quality Starts with the Mindset of Each and Every One of Us – Always Keep Customer Satisfaction Close at Heart

(Created by: Hidetoshi Honda, Supply& Manufacturing Group, Kashima Refinery)

In fiscal 2011, we solicited slogans for Quality Month from employees of the JX Nippon Oil & Energy Group and its partner companies. The slogan above was selected from a total of 9,600 entries that were submitted.

During Quality Month, posters featuring this slogan will be put up in every workplace of our group companies and partner companies.

Summary of the President's Message to Employees of Group Companies and Partner Companies for Fiscal 2011 Quality Month

In order to quickly achieve drastic operating reforms, I would like all of you to keep the "three core senses" (sense of ownership, sense of professionalism, and sense of reform) as well as "customer satisfaction" close at heart as you tackle the challenges that stand before you head on and with fervor.

Using this Quality Month as a starting point, I ask that you take a moment to consider what our customers want and how you would feel if you were the recipient of your work. By re-examining and improving our own operations with an eye on our customers and back-end processes internally, we will be able to further enhance the quality of our products and services, which in turn will encourage our customers to continually choose ENEOS over others. I ask for your sincere efforts in this regard.

Fiscal 2011 Poster



This poster uses a series of images related to our products and services to emphasize that the efforts taking place at each workplace to enhance quality will ultimately enhance customer satisfaction as well.

At the bottom left of the poster is the logo for our TASUKI Spirit campaign to enhance customer satisfaction.

Independent Activities Planned by Each JX Nippon Oil & Energy Group Workplace

Each of our workplaces creates independent initiatives tailored to their own unique situation. Several examples can be found below.

- Onsite inspection patrols and emergency response drills
- Creation of guidelines and procedural manuals as well as presentations on examples of operational improvements
- Calibration of measurement devices, etc.
- Hosting of a lecture at the head office building led by a customer satisfaction representative from another company

ISO9001 Certification

JX Nippon Oil & Energy has acquired ISO9001 certification for its quality management system under which it continues to make improvements to quality control and quality assurance practices for its products.

As of October 2012

Business Sites Having Obtained Certification		Month of Certification
Head Office	Advanced Materials Department, Specialty Chemicals & Materials Division	September 2001
Refineries / Plants	Muroran Refinery	May 1995
	Sendai Refinery	December 1998
	Negishi Refinery	February 1995
	Mizushima Refinery (A Plant)	April 1996
	Mizushima Refinery (B Plant)	January 1996
	Marifu Refinery	April 1996
	Oita Refinery	May 1997
	Kawasaki Plant	May 1995
	Yokohama Plant	March 1995
	Chita Plant	February 1994
Terminals	Sodegaura Terminal	October 1996
Osaka Refinery, Osaka International Refining Company, Limited.		April 1996
Kashima Refinery, Kashima Oil Co., Ltd.		November 1995

Customer Service Center (Call ENEOS) Initiatives

JX Nippon Oil & Energy receives feedback from its valued customers through the ENEOS Customer Service Center. To make an enquiry, please visit the following website.

<http://www.no.ejx-group.co.jp/contact/> (available only in Japanese)

Our customer service center handles enquiries using easy-to-understand, considerate explanations and addresses complaints honestly and appropriately.

In fiscal 2011 (April 2011 to March 2012), we received a total of about 62,000 enquiries at the ENEOS Customer Service Center. Our customer service representatives answered a wide range of questions, including on our ENEOS credit card program.

● As for enquiries about our service stations

ENEOS service stations can be found in approximately 11,600 locations (as of September 30, 2012) across Japan, but each is operated by a separate corporate entity. As a result, enquiries about individual service stations are handled by the company in charge of operations. However, this information is shared with JX Nippon Oil & Energy to ensure that we can monitor each company's approach to customer service.

Pursuing Safety and Compliance for Quality Reassurance

Quality Reassurance at JX Nippon Oil & Energy

JX Nippon Oil & Energy considers safety* and compliance in quality to be one of the most important factors for the peace of mind of its customers.

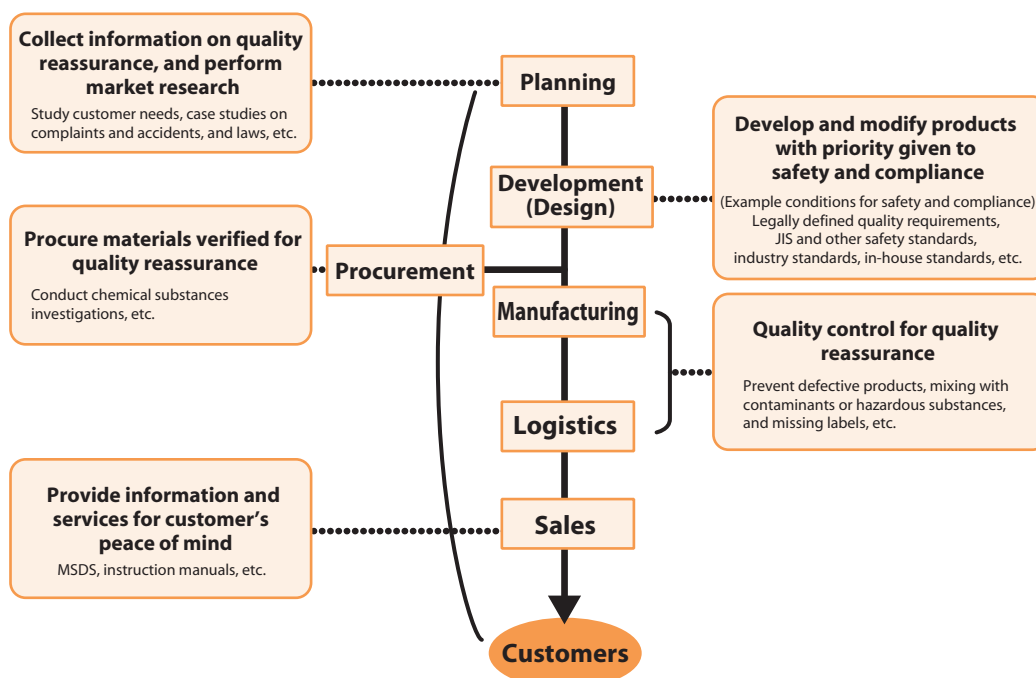
* Safety at JX Nippon Oil & Energy means that a product is safe for people and the environment during its use, re-use and after disposal. The proper provision of safety measure information also serves to complement overall safety.

In order to reassure quality, we have established a basic policy, rules for each process and standards for the chemical substances used in our products. We are also working to strengthen our systems and initiatives in safety and compliance.

Basic Policy on Quality Reassurance

- (1) Engage in new product development and/or modify existing products with a focus on quality reassurance
- (2) Select raw materials and components that fulfill guidelines on quality reassurance
- (3) Determine product specifications based on quality reassurance
- (4) Thoroughly monitor quality in manufacturing processes
- (5) Thoroughly monitor quality in logistics processes
- (6) Provide easy-to-understand and appropriate safety measure information
- (7) Quickly respond to troubles with the utmost priority given to customer safety
- (8) Pursue safety through proactive communication with customers and society

Activities in Each Process



Guidelines on Chemical Substances in Our Products

JX Nippon Oil & Energy has established its own proprietary standards for managing the chemical substances used in its products.

We have defined prohibited or phased out substances (PCBs, asbestos, lead compounds, etc.) and substances that require monitoring (metallic compounds and VOCs such as xylene) to better manage their use in hazardous products that could negatively affect the environment or people's health. Through these efforts we are working to mitigate any harmful effects attributed to chemical substances.

EU REACH Compliance

In June 2007, the European Union enacted a new regulation on chemical substances called REACH*.

* Registration, Evaluation, Authorization and Restriction of Chemicals

This regulation requires that companies register safety performance data for nearly every chemical substance that was either produced in or imported to the European Union with a volume of more than one ton per year.

JX Nippon Oil & Energy works closely with related industry groups such as the Petroleum Association of Japan and the Japan Petrochemical Industry Association and has launched a contact meeting involving all of its departments to foster greater understanding of REACH regulations as well as encourage the sharing of related information and response expertise.

By November 2010, we had completed the registration of all chemical substances exported to the European Union that will likely exceed 1,000 tons per annum. Currently, we are preparing to register those chemical substances exports that do not exceed 1,000 tons.

GHS Compliance

GHS* is a worldwide system that standardizes the categorization and labeling of the threat level associated with specific chemical products.

* The Globally Harmonized System of Classification and Labeling of Chemicals

This system identifies the inherent danger posed by chemical substances and compounds and conveys this information to people (consumers and workers) who handle chemicals. This safeguards peoples' health and safety as well as helps protect the environment.

In conjunction with revisions made to Japan's Industrial Safety and Health Act in 2006, JX Nippon Oil & Energy now ensures that container labels and the Material Safety Data Sheet (MSDS) for products stipulated in this law are fully compliant with GHS. Additionally, we have begun examining ways to expand the scope of container labels as well to comply with modifications made to the Act's rules and regulations in 2012.




Example of automotive gasoline container label

00001

内燃機用
ENEOSレギュラーガソリン

成分:ガソリン (ベンゼン、トルエン、キシレン、ノルマルヘキサンを含む)
有機溶剤中毒予防規則 第2種有機溶剤

危険

- 極めて引火性の高い液体及び蒸気
- 眼刺激
- 肺、腎臓の障害
- 吸気やめまいのおそれ
- 水生生物に有害
- 長期的影響により水生生物に有害

- 皮膚刺激
- 発がんのおそれの疑い
- 長期又は反復暴露による神経の障害
- 長期又は反復暴露による血管の障害のおそれ
- 飲み込み、気道に侵入すると生命に危険のおそれ

火気厳禁
危険等級Ⅱ
第4類第1石油類
200L

【手動】

- ガソリンエンジンにのみ使用すること。
- 他の石油製品と混合使用しないこと(車検及びエンジン故障の原因となるため)。
- 始動時はエンジンを停止させること。
- すべての安全注意(取扱い)を読み理解するまで取り扱わないこと。
- 容器を密閉しておくこと。
- 熱、火花、真鍮等の着火源から遠ざけること。炭酸、有機溶剤の着火源、電気器具、照明機器、火気の点かない工器具を使用すること。
- 静電気放電に対する予防措置を講ずること。他の容器に移し替える場合には、必ずアースをとること。
- 一時的に使用してすぐ捨てること。
- 保護手袋、保護眼鏡、保護服、保護靴を着用すること。
- 屋外または換気のよい場所でのみ使用し、屋内、蒸気の吸入を避けること。
- この製品を使用する時に飲食をしないこと。
- 取扱い後はよく手を洗うこと。
- 空容器に注ぎかけないこと(燃焼の恐れがあるため)。
- 容器を凍結、加熱、穴あけまたは切替しない(残存物が漏れ、発火する恐れがあるため)。又は、転倒や落下させたり、衝撃を出したり、引きずる等の処置をしないこと。

【対応】

- 火災の場合:消火には粉末消火器を使用すること。
- こぼした場合:直ちに拭き取る。
- 皮膚(目には無い)に付着した場合:直ちに汚染された衣服を脱ぎ、皮膚を大量の水で洗い流す。汚染された衣服を再使用する場合には洗濯すること。
- 皮膚刺激が生じた場合:皮膚の静脈・手袋を脱ぐこと。
- 目に入った場合:水で数分注意深く洗うこと。次に、コンタクトレンズを装着していない状態で洗う場合があること。その後も洗浄を続けること。医師の診断・手当てを受けること。
- 腫脹が生じた場合は、又は気分が悪い場合は、医師の診断・手当てを受けること。
- 吸入した場合:空気の新鮮な場所に移し、呼吸しやすい姿勢で休息させること。
- 飲み込んだ場合:直ちに医師に連絡すること。無理に吐かせないこと。
- 高圧の容器が必要な場合:製品名称またはJIS規格を参考に作業すること。

【保管】

- 直射日光を避け、涼しく換気のよい場所に保管すること。
- 容器を密閉し、保管場所に設置すること。
- 中身の量が異なる場所に保管すること。

【連絡先】




- JX日鉱日石エネルギー株式会社
- 東京都千代田区大塚二丁目1番3号
- TEL:0120-58-8704 (ENEOSお客様センター)

JX日鉱日石エネルギー株式会社

東京/千代田区

成分:ガソリン (ベンゼン、トルエン、キシレン、ノルマルヘキサンを含む)
有機溶剤中毒予防規則 第2種有機溶剤

危険

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- 水生生物に有害
- 長期的影響により水生生物に有害

- 皮膚刺激
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- 長期又は反復暴露による血管の障害のおそれ
- 飲み込み、気道に侵入すると生命に危険のおそれ

Social Engagement

Social Contribution Activities Policy

JX Nippon Oil & Energy proactively engages in social contribution activities to realize the JX Group Values of “Relationship with society” and “Harmony with the environment” and to help build a sustainable society.

Priority Fields

Advancement of Sports and Culture

Next Generation Development and Support

Environmental Protection

Keyword Phrases

Support activities rooted in the local community

Support activities led voluntarily by employees

▶ Advancement of Sports and Culture (page 40)

- Basketball Promotion Activities
- ENEOS' Baseball Support Activities
- Inviting Children to Attend FC Tokyo Soccer Matches
- Sponsorship of Wheelchair Basketball Tournaments
- Click Donation for Supporting Adaptive Sports
- JX Children's Story Award / *The Bouquet of Children's Stories*
- JX Children's Story Fund
- Book Report Painting Contest

▶ Next Generation Development and Support (page 42)

- ENEOS Environmental Classes
- ENEOS Children's Science Classes
- Hands-on Learning about Next Generation Energy
- Energy and Environmental Education Seminar for School Teachers
- ENEOS Forests School
- ENEOS Living Creature School
- Summer Holiday Science Bus Tour

▶ Environmental Protection (page 45)

- ENEOS Hydrogen Trust Fund
- ENEOS Forests
- Other Forestation Topics
- Tokyo Greenship Action
- Hibiya Wildlife Flowerbed Development Activities
- The Reintroduction of the Oriental White Stork Plan Support Activities
- ENEOS Credit Card Donation Program for the National Land Afforestation Promotion Organization

▶ Community Engagement and Disaster Relief (page P50)

- CSR Topics
- Disaster Response Coordination Agreement with the City of Kawasaki
- Emergency Relief Assistance

▶ Volunteer Activities (page 52)

- Supporting Employee Volunteer Activities
- Volunteer Collection Drive Activities

Advancement of Sports and Culture

Basketball Promotion Activities

JX Nippon Oil & Energy sponsors the JX Sunflowers women's basketball team. We have also organized a select team consisting of current JX Sunflowers members and former members of Japan's Olympic women's basketball team for the purpose of traveling across Japan to hold basic basketball skills clinics. These clinics were held 63 times in fiscal 2011 with a total of 2,535 people taking part.

- ▶ JX Basketball Clinic (<http://www.jx-group.co.jp/clinic/>) (available only in Japanese)

ENEOS' Baseball Support Activities

JX Nippon Oil & Energy sponsors the JX-ENEOS Baseball Team and also takes part in a wide range of activities aimed at advancing and developing the next generation of players for Japan's national pastime of baseball. As part of these activities, we host little league baseball clinics together with the Yokohama DeNA Baystars and the Tohoku Rakuten Golden Eagles of Nippon Professional Baseball as well as sponsor the Rubber-ball Baseball Tournament of Japan Junior Sports Clubs Association, the NPB12 Team Junior Tournament ENEOS Cup, and other baseball related events.

JX-ENEOS Baseball Team

The JX-ENEOS Baseball Team is an amateur team based in Yokohama that is part of the Japan Amateur Baseball Association. The team began as the Nippon Oil CALTEX Baseball Club back in 1950 and since then it has established a solid history of success, having won the Intercity Baseball Tournament 10 times.

Inviting Children to Attend FC Tokyo Soccer Matches

ENEOS is the official sponsor of FC Tokyo of Japan's professional soccer league, the J-League. Beginning in 2005 we set up special ENEOS Friend – Crew Seats at FC Tokyo home matches so that we can invite children and chaperones from foster-care facilities, single-mother support facilities and the NPO Tokyo Yoikukatei-No-Kai to attend.

In fiscal 2011 we invited a total of 1,900 children and chaperones (100 persons for each of the 19 matches) to attend FC Tokyo home matches. In fiscal 2012 we plan on hosting a total of 2,000 children and chaperones (100 persons for each of the 20 matches).



Letters of appreciation sent from children

Sponsorship of Wheelchair Basketball Championships

JX Nippon Oil & Energy is an avid supporter of wheelchair basketball in Japan.

We sponsor the Japan Wheelchair Basketball Championship Tournament every May, the National Select Junior Wheelchair Basketball Tournament every July, the Japan Women's Wheelchair Basketball Tournament every November and wheelchair basketball clinics.

Employee volunteers took part in the tournament in May to provide operational support and assistance.

We plan to continue these same sponsorships and support efforts in fiscal 2012 as well.

Click Donation in Support of Adaptive Sports

The Click Donation provides various groups with a monetary donation equal to the number of clicks recorded from an icon accessible on the JX Nippon Oil & Energy website. This means that people can click and donate without actually providing a monetary donation themselves.

Between March 2010 and July 2011, we organized a fundraising in support of the Special Olympics as the eighth installment of our Click Fund in Support of Adaptive Sports.

Our Click Fund for the 2010 Special Olympics Nippon National Summer Games Osaka that ran until November 2010 received a total of 3,076,835 clicks, while our Click Donation for the athletes from team Japan competing in the 2011 Special Olympics Summer Games in Athens started in November 2010 tallied a total of 2,955,795 clicks. We donated one yen for every click from both these fundraisings, or 6,032,630 yen, to the Special Olympics Nippon Foundation.

We first started our Click Donation for adaptive sports in 2004 and as of July 2011 we had received a cumulative total of 32,931,549 clicks. As a result, we have provided 32,931,549 yen in donations to adaptive sports athletes and groups training to compete internationally.

Visit our Click Donation website to learn more about where our donations are being used. (available only in Japanese)

☞ Click Donation in Support of Adaptive Sports (<http://www.noie.jx-group.co.jp/csr/click/disclosure/results.html>) (available only in Japanese)

JX Children's Story Award / *The Bouquet of Children's Stories*

The JX Children's Story Award organized by JX Holdings is a contest that recognizes the best works from among submissions of original children's literature on the theme of "heart-to-heart contact". Fiscal 2011 represented the 42nd time these awards were handed out. The award has three categories, including "general", "junior high school" and "elementary school and under", providing an opportunity for persons of all ages, from adults to young children, to submit their original children's literature. The best works are also published in a collection called *The Bouquet of Children's Stories* for all to read. Copies of *The Bouquet of Children's Stories* are donated to single-mother families, foster homes and welfare facilities across Japan through the Tokyo Zen-i Bank and other social welfare organizations.

☞ *The Bouquet of Children's Stories* (<http://www.jx-group.co.jp/hanataba/>) (available only in Japanese)

JX Children's Story Fund

JX Holdings transfers all proceeds from copies of *The Bouquet of Children's Stories* purchased by dealerships operating ENEOS service stations and employees of the JX Group to the JX Children's Story Fund, which in turn makes donations to the Japan Council of Social Welfare. These donations are used to fund the JX Scholarship Program, which provides financial assistance to children from foster-care facilities, single-mother support facilities and foster homes who graduate from high school and will pursue higher education.

Since fiscal 2011, proceeds from these purchases are also being used to support children affected by the Great East Japan Earthquake. In fiscal 2011, we provided a total of 10 million yen in donations to 10 different foster-care facilities (1 million yen for each facility) in the disaster-stricken areas that suffered serious damage in the earthquake and/or tsunami. These donations are being used to fund mental health care programs for foster-care children in need.

Book Report Painting Contest

▶ Book Report Painting Contest (<http://www.noie.jx-group.co.jp/kansouga/>) (available only in Japanese)

Next Generation Development and Support

JX Nippon Oil & Energy supports the development of children in a variety of ways.

ENEOS Environmental Classes (School Visits)

JX Nippon Oil & Energy employees visit elementary schools and other sites to offer ENEOS environmental classes on topics such as the importance of oil to daily life, how petroleum products are created, the current state of global warming, and new environmentally-friendly energy sources. The employees use quizzes, experiments and observation of actual crude oil to present the material in an intuitive way to students. Classes were held at 28 schools across Japan in fiscal 2011, and were attended by roughly 1,170 children.

Experiments that compare hydrogen and carbon dioxide and experiments are always a favorite of participants, providing an enjoyable environment to learn about the environment and energy.



"How is oil being used?"



Experiment comparing hydrogen and carbon dioxide

▶ Video of an ENEOS environmental class (http://www.eneos-tv.jp/?movie_id=wakuwaku_env_class) (available only in Japanese)

- ▶ Apply for an ENEOS environmental class
- ▶ Feedback from ENEOS environmental classes

ENEOS Children's Science Classes

Our Central Technical Research Laboratory has been holding the ENEOS Children's Science Class since January 2005 in order to foster greater interest in science and broaden understanding of petroleum among children. Thus far, these classes have been held a total of 58 times and have been attended by about 2,600 elementary school students.

Each time the curriculum is updated and changed to ensure that the children participants of late elementary school grades are amazed at what they learn and also take the initiative to participate in the experiments. Starting in fiscal 2011, we began demonstrations using the new theme of desulfurization experiments, which sparked such feedback as, "It was really fun because we did experiments that I can't do in science class."



An ENEOS Children's Science Class in progress

Hands-on Learning about Next Generation Energy

JX Nippon Oil & Energy has been holding hands-on learning experiences for local students at its JHFC Yokohama-Asahi Hydrogen Station since fiscal 2005 in order to foster greater interest in environmentally-friendly next-generation hydrogen using a fun and interactive program.

This year's program included a lecture on fuel cells and hydrogen energy as well as a visit to the hydrogen station and a ride in a fuel cell powered vehicle. These experiences helped students recognize that the hydrogen energy of society is just around the corner.



Touring the hydrogen manufacturing facilities at the hydrogen station

Energy and Environmental Education Seminar for School Teachers

We hold environmental education and energy seminars for school teachers actively involved in these fields in order to foster correct understanding about environmental and energy issues, such as global warming, among their pupils.

They say classrooms lack the latest information from industries working to tackle energy and environmental challenges. As a result, we are providing information for the betterment of environmental education programs by offering site tours at our refineries, lectures on how petroleum products are made from crude oil, and presentations on our environmental initiatives.



A lecture in progress



A discussion involving program participants

- ▶ Results of the Fiscal 2010 Energy and Environmental Education Seminar
- ▶ Results of the Fiscal 2009 Energy and Environmental Education Seminar
- ▶ Results of the Fiscal 2008 Energy and Environmental Education Seminar

ENEOS Forests School

We have been holding ENEOS Forests School classes since fiscal 2007 in order to provide elementary school students with an opportunity to learn about, enjoy and immerse themselves in forests. These classes serve to educate these students the importance of nature preservation and energy through fun and hands-on curriculum, such as forest expeditions and games.

- ▶ ENEOS Forests School (<http://www.noie.jx-group.co.jp/csr/morikids/index.html>)
(available only in Japanese)



ENEOS Living Creature School

We hold ENEOS Living Creature School classes for elementary school students in Toyooka City, Hyogo Prefecture. These hands-on classes help to teach students about biodiversity conservation using the theme of white stork protection activities.

- ▶ ENEOS Living Creature School (page 49)



Summer Holiday Science Bus Tour

Each of our refineries works together with a newspaper company to hold the Summer Holiday Science Bus Tour for elementary school students and their guardians. Participants learn about how energy is related to their everyday life in a fun format, which helps children to broaden their awareness toward the environment.

The group is taken on a tour of a refinery on board a bus where they learn about the processes involved from the import of crude oil and refining to product shipment. They also get to see a water-discharge exercise performed by fire trucks and fireboats. Participants always provide a great deal of feedback on the program, including "It served as a great opportunity for me to think about the environment and energy".

These bus tours were held at six of our refineries in fiscal 2011, attracting a total of 474 participants, including children and their guardians.

- ☒ Fiscal 2012 Summer Holiday Science Bus Tour

(<http://www.noe.jx-group.co.jp/bustour/2012/>) (available only in Japanese)



Environmental Protection

“Harmony with the environment” is one component of the JX Group Values. As a result, we are proactively taking actions to protect the environment in order to fulfill this value.

Public Trust “ENEOS Hydrogen Trust Fund”

Reasons for Establishing the Fund

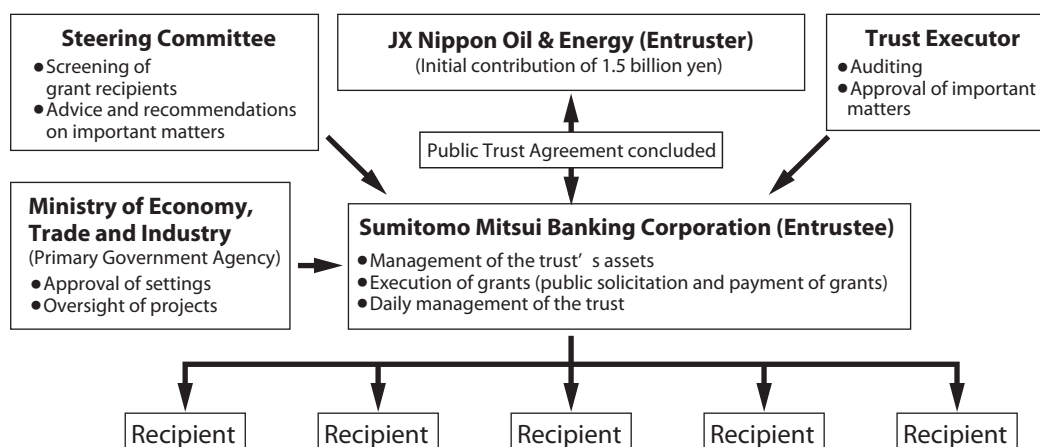
Today, a variety of environment issues such as global warming are in the spotlight and many have called for the development of a sustainable society that grows responsibly with new energy systems that do not produce CO₂ or hazardous substances.

Hydrogen, which is used in fuel cells and other new energy solutions, has garnered attention as a new energy source that can help create the sustainable society of tomorrow. However, major technological advancements are still needed in the fields of hydrogen production, transport, and storage as well as carbon capture in order for this potentially revolutionary technology to be used more widely in energy systems.

In this context, JX Nippon Oil & Energy established the ENEOS Hydrogen Trust Fund in March 2006 in order to help speed-up the realization of a hydrogen energy society through grants to fund basic research that is both innovative and pioneering. Each year this trust fund provides 50 million yen (up to 10 million yen per project) in grants to support basic research into hydrogen energy supply systems that is innovative and pioneering. Our initial contribution of 1.5 billion yen to this fund means that we will be able to fund research continually for the next 30 years.

This funding will encourage basic research for establishing and verifying new scientific principles that transcend existing ideas. This will build the foundation for technological advancements and help to quickly realize the hydrogen society of tomorrow.

Of the 51 projects that applied in fiscal 2011, we provided grants to a five based on a careful screening performed by the fund’s steering committee.



About Public Trusts

In Japan, a public trust is a program for the benefit of the public in which an entruster provides assets to a trust bank (entrustee) for a defined purpose and the trust bank then manages the trust’s assets in accordance with the Public Trust Agreement concluded between the two parties. This scheme is used by a wide range of public interest projects to provide funding for scholarships, grants for research into the natural sciences, art and science, grants for environmental protection activities, and the promotion of international cooperation and international exchange. Public trusts can only be established with the approval of the primary government agency with jurisdiction.

Overview of the ENEOS Hydrogen Trust Fund

Name:	ENEOS Hydrogen Trust Fund
Entrustee:	Sumitomo Mitsui Banking Corporation
Primary Government Agency:	Ministry of Economy, Trade and Industry
Purpose:	Provide grants for basic research into hydrogen energy supply solutions and contribute to the realization of the hydrogen-based society of tomorrow because hydrogen is an energy source that is in harmony with the environment
Total Trust Assets:	1.5 billion yen
Annual Grants Awarded:	Up to 50 million yen (maximum grant of 10 million yen per project)
Research Supported:	Basic research that is both innovative and pioneering in the fields of hydrogen energy production, transport and storage as well a carbon capture.
Grant Eligibility:	Persons belonging to non-profit national research institutions, such as universities or public research organizations, and that are researching eligible fields.
Solicitation and Selection Process:	Solicitation shall be open to the public, with screenings performed by the steering committee of the trust.

- ▶ Application Guidelines (Overview)
- ▶ 6th Research Grant Awards and List of Research Awardees
- ▶ 5th Research Grant Awards and List of Research Awardees
- ▶ 4th Research Grant Awards and List of Research Awardees
- ▶ 3rd Research Grant Awards and List of Research Awardees
- ▶ 2nd Research Grant Awards and List of Research Awardees
- ▶ 1st Research Grant Awards and List of Research Awardees

ENEOS Forests

Forests play a vital role in absorbing CO₂, maintaining biodiversity, and conserving watersheds, but in order to do so they need to be continually maintained responsibly. As a result, the JX Nippon Oil & Energy Group is implementing forest stewardship activities led by its employees and their family on fields near-by its refineries across Japan. The platforms for these activities are referred to as ENEOS Forests.

In a partnership with local governments or the National Land Afforestation Promotion Organization, the JX Nippon Oil & Energy Group is involved in a field of activities supporting the stewardship of specified sections of unmaintained forests in Japan. These areas are located in the eight prefectures of Hokkaido, Miyagi, Kanagawa, Nagano, Nara, Okayama, Yamaguchi and Oita.

At each of these ENEOS Forests, group employees and their family take part in activities led by local NPOs and other groups specializing in forest stewardship. In addition to conservation activities such as tree planting, thinning and brush clearing, participants get closer to nature by observing flora and fauna, building birdhouses, and lightly harvesting forest products.

In fiscal 2011, we conducted activities 13 times at eight locations, with a total of 1,104 participants that included employees and their family. Since 2005, we have held activities a total of 122 times at sites across Japan, with participants numbering 8,769. These activities have spanned from thinning to brush clearing, pruning and trail development.

▶ ENEOS Forests

▶ View a video (51 seconds) on ENEOS Forests at:

(http://www.no.ejx-group.co.jp/csr/social/society/environment/movie/index_mv01.wmv) (available only in Japanese)



Volunteers hard at work in an ENEOS Forest

Other Forestation Topics

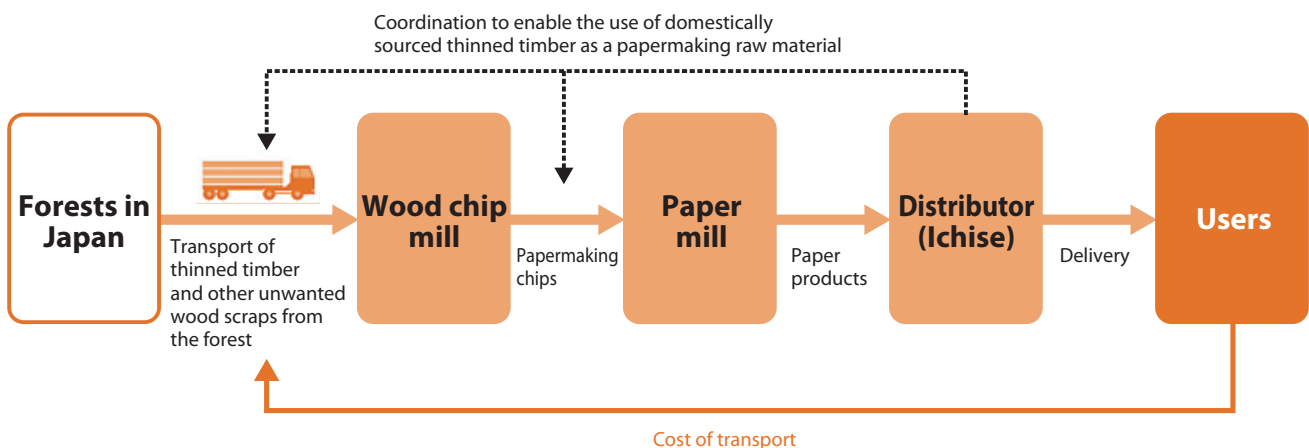
Turning Thinned Timber from Responsibly Managed Forests Across Japan into “3.9 Paper”

Many of Japan’s forests are not being fully managed in a responsible manner due to a lack of funding or shortage of people. The proceeds from the sale of thinned timber can be used to help manage forests, but transportation makes it cost prohibitive to carry the timber down from mountainous areas. This either means that a lack of thinning makes it harder for trees to mature or thinned timber has to be left behind causing the forest itself to deteriorate. With this in mind, a product called “3.9 paper” was launched in an effort to help support local forestation activities and make use of thinned timber. This forestation initiative not only protects the local environment, but also helps trees mature, whereby increasing the rate of CO₂ absorption and mitigating global warming.

We proactively use 3.9 paper for printed material distributed to our stakeholders, including *The Bouquet of Children’s Stories* and this CSR report.

What is 3.9 paper?

3.9 paper is made from domestically sourced thinned timber. Making full use of thinned timber helps to promote proper forest maintenance. Yet, the price of thinned timber is low and the cost of transportation high, meaning that in many cases thinned timber is simply left behind in the forest, which can impact the growth of saplings. In order to resolve this situation, paper wholesaler Ichise Co., Ltd. and Oji Paper Co., Ltd. developed a business model known as “3.9 paper” to ensure thinned timber is being effectively utilized and to encourage proper forest maintenance practices. Paper users bear the cost of transportation for thinned timber, which makes it possible to use this as a raw material in papermaking.



Tokyo Greenship Action

Tokyo Greenship Action is an environmental conservation initiative involving Tokyo Metropolitan Government, private-sector companies and NGOs that aims to protect the remaining natural woodland areas of Tokyo. JX Nippon Oil & Energy has been involved in this initiative since fiscal 2004. Under the lead of the Machida Historical Environment Management Union, JX Nippon Oil & Energy employees and their families are taking part in a Satoyama Initiative to restore arid fields using traditional agricultural methods in the Zushi Onoji Historical and Environmental Conservation Area of Machida City in Tokyo.

In fiscal 2011, activities were held on eight occasions, with 212 participants taking part. Additionally, since 2004 we have held activities on a total of 53 occasions that have attracted 1,467 participants. In July 2009, we received the Fiscal 2009 Tokyo Metropolitan Government Environmental Award (Director-General's Award) in recognition of these activities, while in 2010 a panel of experts commended these activities for matching the goals of the Satoyama Initiative for biodiversity conservation being shared around the world by Japan.

- ▶ Activities from fiscal 2011



A photo of volunteers taken after the field was plowed

Hibiya Wildlife Flowerbed Development Activities

Starting in October 2005, we began building and maintaining a flowerbed in one corner of Hibiya Park, which is located in Tokyo's Chiyoda Ward near our head office. As part of this project, employees and their families volunteer to plant seasonal flowers, weed, cleanup and water in order to make the park even more appealing to visitors. In addition to our efforts to make the heart of Tokyo greener, starting in 2011 we created a small garden filled with plants that attract butterflies in the flowerbed to help enrich Tokyo's biodiversity.

These activities were held on four occasions in fiscal 2011, attracting a total of 70 volunteers.

- ▶ Activities from fiscal 2011
- ▶ Activities from fiscal 2010

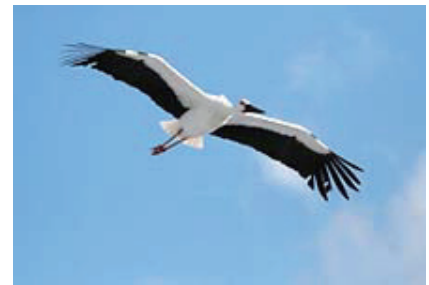


Employees and their families planting new seasonal flowers

The Reintroduction of the Oriental White Stork Plan Support Activities

We have been supporting the Reintroduction of the Oriental White Stork Plan since 2006. This project is based out of Toyooka City, Hyogo Prefecture and aims to help a variety of living creatures thrive once again.

Since fiscal 2009, we have been holding ENEOS Living Creatures School classes for children in the Kansai area that teach about the theme of wild white stork protection using a variety of hands-on learning curriculum focused on biodiversity conservation.



ENEOS Living Creatures School

We hold ENEOS Living Creatures School classes for elementary school students in Toyooka City, Hyogo Prefecture. This hands-on learning program focuses on biodiversity conservation using the topic of wild white stork protection.

In fiscal 2011, we organized a two day and one night program for a total of 26 participants that included 13 pairs consisting of elementary school students and a guardian.



▶ Activities in October 2011

(http://www.no.ej-group.co.jp/newsrelease/2011/20110915_01_0960492.html) (available only in Japanese)

▶ ENEOS Living Creatures School activities (October 2011)

▶ ENEOS Living Creatures School participant feedback

☑ A pond created as part of the program's small nature restoration activity (Toyooka City website) (<http://www.city.toyooka.lg.jp/www/contents/1323051476011/index.html>) (available only in Japanese)

▶ Activities in July 2010

(http://www.no.ej-group.co.jp/newsrelease/2010/20100517_01_0794529.html) (available only in Japanese)

▶ ENEOS Living Creatures School activities (July 2010)

▶ Activities in March 2010

(http://www.no.ej-group.co.jp/newsrelease/noc/2009/20100209_01_0952366.html) (available only in Japanese)

▶ ENEOS Living Creatures School activities (March 2010)

☑ Wild White Stork CSR (<http://www.no.ej-group.co.jp/kounotori/index.html>) (available only in Japanese)

ENEOS Credit Card Donation Program for the National Land Afforestation Promotion Organization

Ever since we began offering ENEOS credit cards in October 2001, we have donated 0.01% of the amount charged on these cards by customers at ENEOS service stations to the National Land Afforestation Promotion Organization. These funds are being used to help support environmental activities both in Japan and internationally. Until now we have donated more than 200 million yen through this initiative.



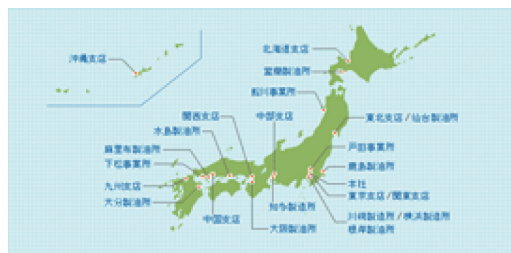
▶ ENEOS credit card information (<http://www.no.ej-group.co.jp/carlife/card/index.html>) (available only in Japanese)

Community Engagement and Disaster Relief

The JX Nippon Oil & Energy Group takes part in a wide range of activities and actively broadens its engagement with local community members to live up to the expectations of the local communities in which it operates.

CSR Topics

The JX Nippon Oil & Energy Group implements a host of community contribution activities across Japan. These activities are introduced on the *CSR Activity Topics* page of our corporate website twice each month.



- ▶ CSR Activity Topics
(<http://www.no.e.jx-group.co.jp/company/csr/topics/index.html>)
(available only in Japanese)

Disaster Response Coordination Agreement with the City of Kawasaki



Large inflatable shelter for emergency assistance

JX Nippon Oil & Energy has concluded an agreement with the City of Kawasaki to provide assistance to those affected by a disaster.

Under this agreement, facilities at the ENEOS Todoroki Ground located in Kawasaki's Nakahara Ward will be opened to those in need as a temporary site of refuge in the event of a disaster. We will supply a large inflatable shelter for emergency assistance free of charge, while required relief supplies will be provided by the City of Kawasaki. This will enable both parties to assist those in need immediately after a disaster through a unique partnership involving local government and a private-sector company.

- ▶ Agreement signing ceremony
- ▶ Inflatable shelter
- ▶ Involvement in the City of Kawasaki's comprehensive disaster-preparedness drill

Emergency Relief Assistance

JX Nippon Oil & Energy provides assistance to those in need following major disasters.

Relief Assistance Activities during Fiscal 2011

December 2011	Thailand floods	<ul style="list-style-type: none"> ● JX Nippon Oil & Energy, JX Nippon Oil & Gas Exploration, and JX Nippon Oil & Energy (Thailand) partnered up to provide charitable donations to the Thai Red Cross Society
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Relief Assistance for the Great East Japan Earthquake

In March 2011, the JX Group provided 300 million yen in charitable donations through the Japanese Red Cross Society to support relief assistance activities in the wake of the Great East Japan Earthquake.

JX Nippon Oil & Energy also donated 0.01% of purchases made by ENEOS credit card holders, totaling about 33 million yen, to ASHINAGA's fund for supporting children in need that lost a parent or parents in the earthquake or tsunami, in order to aid in their future development.

● The JX Group's Volunteer Activities in Support of the Recovery Effort

The JX Group and many of its employees have taken part in volunteer activities in support of the recovery effort following Great East Japan Earthquake.

 <http://www.hd.jx-group.co.jp/csr/volunteer/> (available only in Japanese)

Volunteer Activities

JX Nippon Oil & Energy proactively engages in social contribution activities as a member of society to help realize the JX Group Value of "Relationship with society".

Supporting Employees that Take Part in Volunteer Activities

We have implemented a program that enables employees to take time off from work to participate in volunteer activities. In fiscal 2011, 108 employees used this program to take a total of 211 days off for volunteer work.

Volunteer Collection Drive Activities



Items collected by volunteers

We have been collecting and donating unusable postcards, unused prepaid cards and other items to NGOs since 1997 to provide an opportunity for anyone to easily take part in volunteer activities. All of our business sites across Japan and JX Group companies took part in the volunteer collection drive activities held in January 2012. Donations of items were provided to the following organizations.

Unusable Postcards and Unused Stamps



Records marking the progress of children receiving support from the Darunee Scholarship Project

These items were donated to the Darunee Scholarship Project being implemented by EDF-Japan where they will be used to fund scholarships for junior high school students in Thailand.

Unused Prepaid Cards and Gift Certificates



Unused prepaid cards and gift certificates being presented to Hunger Free World

These items were donated to Hunger Free World, an NPO working to eliminate hunger around the world, to help fund its operations and activities.

Charity Book Drive

Books collected through our collection drive activities were made available for employees to purchase at a charity book drive held at the JX Building in March 2012. The proceeds of these sales were donated to Peace Winds Japan, a specified non-profit corporation.

The charity book drive's mission was twofold. First, we wanted to encourage employees to think more about reusing resources through an event where they donated their unwanted books to benefit a charity. Secondly, we wanted to donate all of the proceeds from these sales to help support environmental activities in East Timor and fund recovery efforts for the Great East Japan Earthquake.

For this book drive, employees from JX Nippon Oil & Energy and other JX Group companies donated a total of 1410 books. Many employees, including senior executives, visited the charity book drive venue to purchase a book and also provide separate charitable donations.

Ensemble JX, a group of volunteer employees, performed a concert as part of the charity book drive to call for participation and to provide entertainment.



The charity book drive in progress



Ensemble JX performing

Employee Engagement

Fundamental Approach

Our employees are key driver behind our CSR activities and also stand as our most important stakeholder. JX Nippon Oil & Energy recognizes that it must provide workplace environments where each and every employee can fully utilize as well as further develop their skills. To that end, we have created a wide range of programs to support our people.

▶ Providing Workplaces where Employees can Thrive (page 55)

- Personnel System and Hiring Activities
- Employee Composition
- Discretionary Labor System
- Advent of Professional Track Designation
- Promoting Career Opportunities for the Disabled
- Promoting Career Opportunities for Women
- Health Management

▶ Providing Employee-friendly Workplaces (page 59)

- Developing the Next Generation
- Flextime Program
- Shortened Working Hours Program
- Childcare Assistance Programs
- Care Giver Assistance Programs
- Life Planning Seminars
- Re-employment Program
- Proper Management of Working Hours
- Encouraging Employees to take Annual Paid Leave
- Reducing Total Annual Working Hours
- Dialog with Labor Union

▶ Human Rights Initiatives (page 62)

- Respect for Human Rights
- Encouragement of Human Rights Awareness

Providing Workplaces where Employees can Thrive

Personnel System and Hiring Activities

Employees are the key driver behind any company's actions and as such they need to be able to develop and fully utilize their skills in the workplace.

JX Nippon Oil & Energy has developed remuneration and personnel evaluation systems in order to help develop and energize its human resources.

1. Reflecting the Latest Performance (Current Value) in Remuneration

We recognize that it is important to properly evaluate each individual employee's results and reflect these in remuneration in a timely manner in order to drive their motivation and energize their efforts further.

2. Improving the Transparency, Fairness and Acceptance of Our Personnel Evaluation System

Our remuneration and personnel evaluation systems are performance based. To ensure these systems function effectively, we understand that we need to maintain transparency, fairness and acceptance. As a result, we provide regular training for managerial staff, which play a key role within our personnel evaluation system, and strive to provide appropriate feedback on evaluation results to each and every employee.

3. Providing Opportunities for Employees to Shine

We provide opportunities for each and every employee to utilize their skills and have developed the following programs to help our human resources thrive.

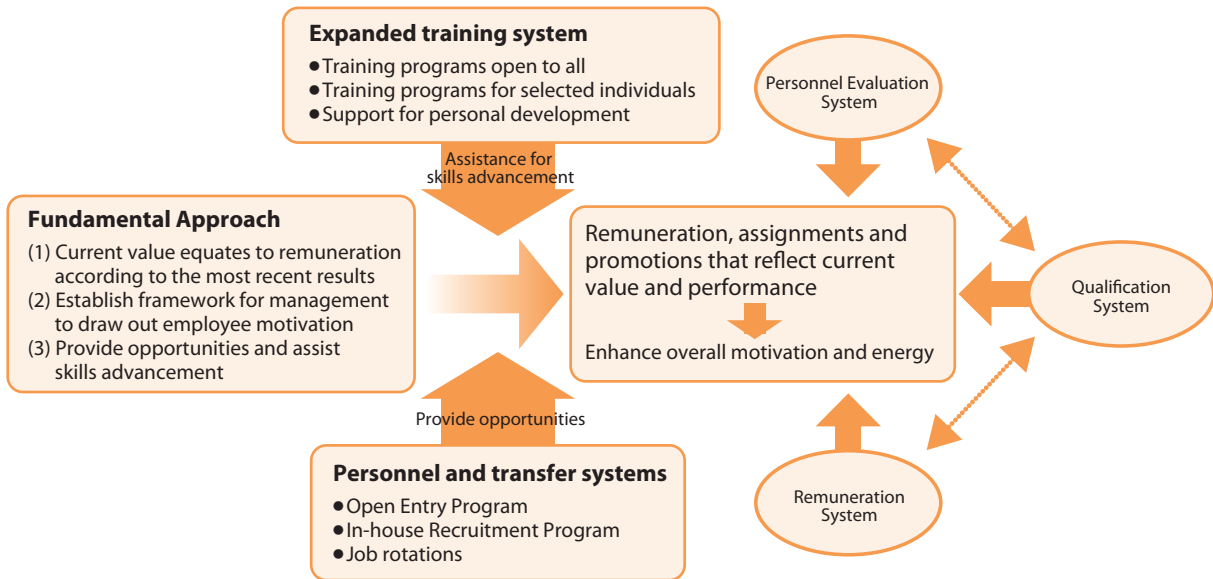
● Open Entry Program

Our open entry program reflects the strong desires and conviction employees have in their current work in transfers.

● In-house Recruitment Program

Our in-house recruitment program enables employees to apply for positions that open up for new business fields and projects.

Personnel System Overview



We provide information to prospective employees through our website, which includes the type of people we are looking to hire and the fields in which they can work.

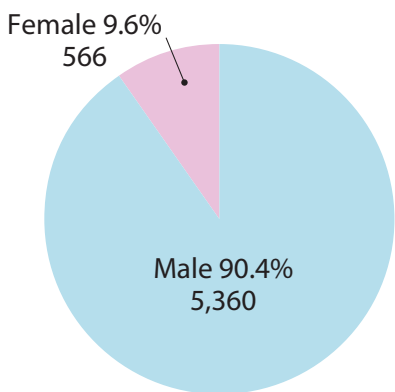
We use a fair selection process that focuses on the aspirations and motivation of prospective employees, and not gender or other personal qualities. Our interviews are held in a professional manner to ensure that both the company and the prospective employee fully understand one another.

Employee Composition

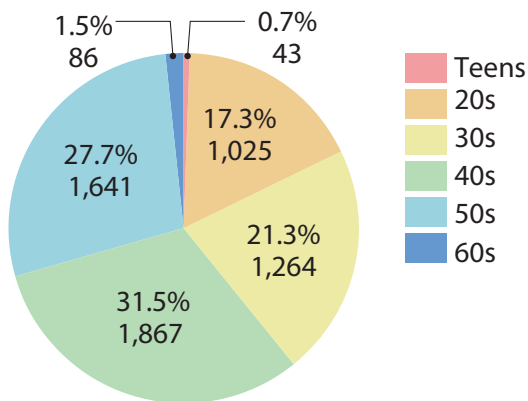
As of March 31, 2012, JX Nippon Oil & Energy had the following number of employees.

Regular employees	5,926
Employees forwarded from other companies	147
Part-time workers	23

By Gender



By Age Group



Discretionary Labor System

JX Nippon Oil & Energy uses a discretionary labor system for employees engaged in corporate planning and R&D at its head office and Central Technical Research Laboratory. This is because in searching for options that can be applied to the diverse individual needs of today's employee we found that employees engaged in these fields should be afforded the discretion to determine how they execute their work duties and allocate their time.

We also offer a flextime program, shortened working hours program and childcare as well as care giver assistance programs to accommodate the increasingly more diverse individual requirements of our employees.

Advent of Professional Track Designation

We have established the professional track designation for employees that are capable of contributing to society or the company's business performance by leveraging an advanced skill or creativity.

Promoting Career Opportunities for the Disabled

JX Nippon Oil & Energy has established the target to achieve a 2% employment rate of persons with disabilities, which exceeds the statutory employment rate of 1.8%.

As of March 31, 2012, our employment rate of persons with disabilities stood at 1.85%.

In addition, training programs for entry-level employees also feature a hands-on session with wheelchairs to foster greater awareness towards persons with disabilities, while several of our departments offer sign language classes.

Promoting Career Opportunities for Women

We eliminated the full-time track designation used for jobs engaged in fixed and supportive roles, which mainly consisted of female workers, and merged it with the general career track designation in order to develop and invigorate our human resources. This will provide greater opportunities for our female employees to contribute their skills and advance their career to a higher level.

Health Management

We recognize that the physical and mental wellbeing of our employees is a key to their success.

To that end, JX Nippon Oil & Energy offers regular health check-ups as well as other unique health management initiatives such as a health hotline and help in preventing adult-onset diseases.

We have placed particular focus on our mental health care measures, which includes self care by employees, line care by managers, an organized support system and hotlines both inside and outside the company.

We also provide mental health care training to entry-level employees.

Going forward, we will continue to implement our mental health care measures under the following system.

Mental Health Promotion System

		Self care	Line care
Prevention	Information provision	Internet, email magazine, booklets	
	Stress checks	Health counseling for employees working long hours	
	Training and education	General employee training (Self management)	Managerial training (Workplace management)
	Hotlines	In-house hotline (Human Resources Department) Regular exams (industrial physician) Employee Assistance Program (external organization)	
Actual response	Return to work	-	Rework Assistance Program

Providing Employee-friendly Workplaces

Developing the Next Generation

JX Nippon Oil & Energy has formulated its fourth action plan under Japan's Act for Measures to Support the Development of the Next Generation and is implementing measures to support a work-life balance aimed at achieving its targets set out in this plan.

Details of the 4th Action Plan (April 1, 2011 to March 31, 2013)

Target 1	Develop and run a program that provides peace of mind to employees that will be having a baby
Target 2	Develop and run a program that provides peace of mind to employees raising a child/children
Target 3	Provide a workplace environment that warmly looks after employees that are pregnant or raising a child/children

Next Generation Accreditation Mark "KURUMIN"

Japan's Ministry of Health, Labour and Welfare recognized that we have achieved our 1st General Business Owner Action Plan (April 1, 2005 to March 31, 2007), 2nd General Business Owner Action Plan (April 1, 2007 to March 31, 2009) and 3rd General Business Owner Action Plan (April 1, 2009 to March 31, 2011). As a result, we have acquired the right to use the next generation accreditation mark "KURUMIN".

Going forward, we will continue to proactively encourage a work-life balance as well as provide a variety of measures to ensure our employees can enjoy and get the most of their jobs.



We support childcare

● Compilation of Childcare Assistance Guidebook

In October 2010, we compiled the *Childcare Assistance Guidebook – Comprehensive Information for Employees Having a Baby or Raising Children* and published it on our in-house intranet.

This guidebook provides an overview of our in-house programs as well as the applications for these programs that are available for employees having a baby or raising children. Our initiatives in support of the next generation and employees' work-life balance are not limited to female employees, as male employees are also expected to play a role whether they are a spouse, father, supervisor or colleague. It is our hope that this guidebook will help broaden employee understanding of our work-life balance support measures and help us develop a workplace environment where all employees are motivated and can thrive.

Flextime Program

We offer a flextime program where employees can choose what time they start and end work as long as they are present for core work hours.

Shortened Working Hours Program

Employees that are pregnant, raising a child, acting as a care giver, or have a disability can freely select from 5.5 hour, 6.0 hour or 6.5 hour work days.

Childcare Assistance Programs

We offer a parental leave program, childcare leave, nursing care leave, and a shortened working hours program to help employees achieve a work-life balance.

Care Giver Assistance Programs

We provide a care giver leave program, care giver leave and a shortened working hours program to help employees balance their professional and private lives.

Life Planning Seminars

We hold seminars that help employees plan for their retirement.

Re-employment Program

We offer a re-employment program for retired workers that have the desire and motivation to continue working, excluding those with special circumstances that may make it difficult to work such as a health condition. This program provides these employees another opportunity to share their valuable knowledge, skills and experience with the company.

Proper Management of Working Hours

JX Nippon Oil & Energy is committed to eliminating unpaid work. We strive to properly manage employee working hours and have established a system that correctly monitors these hours.

Encouraging Employees to take Annual Paid Leave

1. First consecutive leave: Employees are encouraged to take five consecutive days of annual paid leave between July and September
2. Second consecutive leave: Employees are encouraged to take three consecutive days of annual paid leave during a period other than July to September
3. Two days per year are set to encourage employees to take annual paid leave
4. Employees are given paid leave on a day they commemorate

Reducing Total Annual Working Hours

The “Goodbye Overtime – Action 8” Initiative

We have instituted the “Goodbye Overtime – Action 8” initiative in order to reduce the total working hours of our employees. The purpose of this initiative is to make it possible for employees to maximize their skill sets and work hard by achieving a high degree of work-life balance. In turn, this will improve the company’s productivity and enable a positive relationship between the company and its employees.

Overview of “Goodbye Overtime – Action 8”

Name	Description
I. “8 O’clock Rule” Campaign	Leave work by 8:00pm
II. “No Sunday Work” Campaign	Prohibits work on Sundays
III. “No Overtime Day” Campaign	One day a week set separately for each department (group)
IV. “Minus 30 Minutes” Campaign	Leave work 30 minutes before the end of regular working hours at least once per month
V. “Compliance with Overtime Rules” Campaign	Leave at the end of regular working hours when there is no order to work overtime
VI. “Whenever Wherever” Campaign	(Supervisors) Issue work orders by clearly stipulating purpose, delivery and quality (whenever wherever) (Employees) Approve orders after conveying other work responsibilities
VII. “Lead by Example” Campaign	Managers foster an environment where it is easy to take annual paid leave
VIII. “Do It Yourself” Campaign	To every extend possible managers are to create their own briefing materials, etc.

Dialog with Labor Union

JX Nippon Oil & Energy holds discussions with its labor union that cover a wide range of topics that include revisions to labor conditions. We also co-organize review meetings on support for the next generation and on reducing working hours where a vigorous exchange of views takes place.

Human Rights Initiatives

Respect for Human Rights

JX Nippon Oil & Energy strives to elevate its employees' awareness of human rights issues and under the basic policy to "eliminate all times of discrimination through respect for human rights", we are working to raise awareness about human rights matters. Additionally, we are implementing a wide range of measures from the standpoint of respect for human rights.

In November 2011, we called on employees of JX Nippon Oil & Energy and affiliates and their families to propose a human rights slogan for the company's human rights week (December 4 to December 10). We hold this contest every year as an opportunity to encourage employees and their families to think more about human rights issues. In fiscal 2011, there were a total of 4,027 submissions, including 313 from family members of employees. We selected a total of nine winners and 83 honorable mentions in the employee category as well as five winners and 27 honorable mentions for the family category.

Encouragement of Human Rights Awareness

Respect for human rights represents a core concept behind the JX Group's mission statement and JX Group Values. It is important that each and every employee make business decisions, act and speak based on a fair and equitable understanding of human rights. As a result, we provide training to various groups of employees, including entry-level employees, mid-career employees, managers and senior executives, to help raise awareness about human rights issues.

JX Nippon Oil & Energy together with 20 of its affiliates has established the Human Rights Awareness Promotion Contact Meeting to tackle issues related to raising awareness of human rights matters. For example, this contact meeting solicits slogan submissions from employees and their families each year in advance of human rights week in December. It also utilizes the company's intranet to implement e-learning training programs on human rights to foster greater understanding in a wide range of human rights issues.

Sign Language Classes

Employees with a hearing disability teach sign language to employees at our head office and several affiliates. Younger employees with a hearing disability teach us a lot during everyday work situations, but during these classes they act as a sign language instructor to impart their knowledge on participants.

The photograph at right shows one of the sign language classes held at our head office in progress. These classes have been held continually at our head office for about a decade.

These classes have continued for this long because they are needed for communication during actual work situations, they offer easy to understand curriculum created by the employee instructors, and they are fun. Another reason that cannot be overlooked is that previous supervisors set an example that was worth following. That is, the proactive stance of our supervisors has played an important role in making these classes possible.



Environmental Management

Fundamental Approach

The JX Nippon Oil & Energy Group is committed to striking a harmonious balance between our business activities and the global environment by constantly being aware of the impacts these activities have or may have on the natural environment.

To define this commitment, we have formulated a Medium-term Environmental Management Plan based on the JX Nippon Oil & Energy Group Environmental Policy, and in order to steadily execute its management plan, we have established the JX Energy Group Environmental Management System (EMS). These plans, policies and systems represent our integrated and consistent group-wide approach to environmental management.

JX Nippon Oil & Energy Group Environmental Policy

The JX Nippon Oil & Energy Group will

1. Develop the technologies, products and services that help to create a better global environment.
2. Work diligently to prevent global warming and be mindful of preserving biodiversity.
3. Constantly strive to reduce environmental impact in all business activities.
4. Strive for strict compliance with environmental laws, regulations and ordinances, based on the highest ethical values.

The JX Nippon Oil & Energy Group Medium-term Environmental Management Plan for the Period from Fiscal 2010 to Fiscal 2012

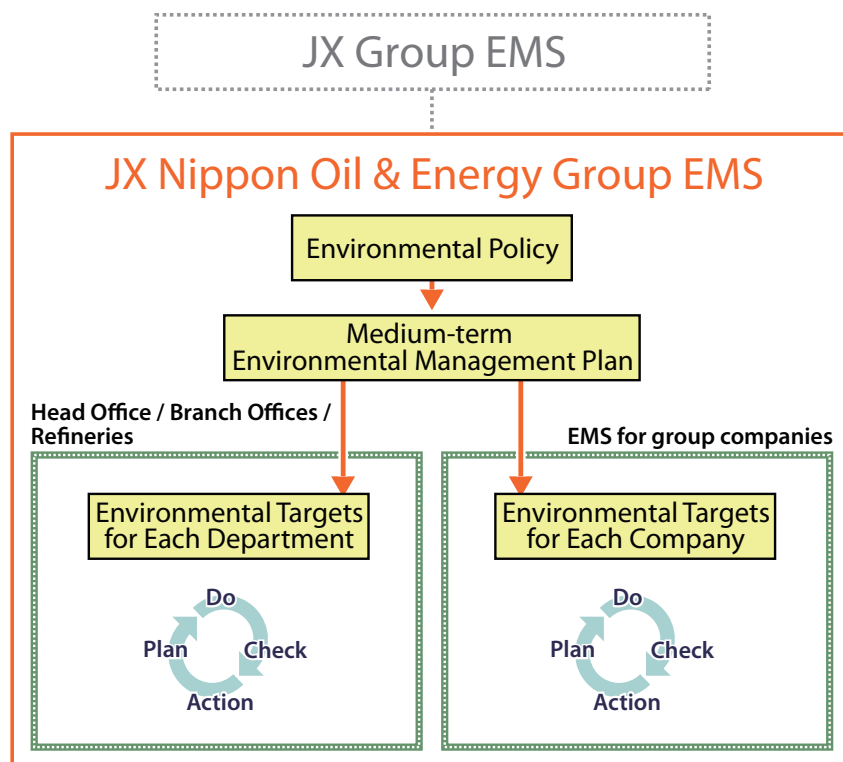
Key Themes	Name of Measure	Specific Details
I. Promote measures to prevent global warming and preserve biodiversity	(1) Develop and provide environmentally-friendly products and services	<ul style="list-style-type: none"> ● Develop and expand sales of environmentally-conscious fuel oils, lubricants, and petrochemicals ● Develop and expand sales of next generation technologies, including fuel cells, photovoltaic cells, storage batteries and hydrogen technologies
	(2) Reduce CO ₂ emissions across the entire supply chain	Aim to reduce specific energy consumption by 3% (compared to fiscal 2009)
	(3) Take part in activities for the betterment of the environment	Promote environmental protection, environmental education and environmental awareness that is considerate of global warming prevention and biodiversity preservation
	(4) Utilize the Kyoto Mechanisms	Implement global warming prevention measures that utilize the Kyoto Mechanisms

II. Continually reduce environmental impacts	(1) Perform soil contamination studies and take relevant measures	<ul style="list-style-type: none"> Facilities in operation: Continually perform studies on and take measures to prevent spills offsite Decommissioned facilities: Continually perform systematic studies and take relevant measures Development of cleanup technologies: Develop lower cost methods for cleanup
	(2) Take steps to reduce VOCs	Continually reduce the usage of volatile organic compounds (VOCs)
	(3) Take steps to reduce waste	Achieve the Zero Emission Plus goals (waste-to-landfill ratio of less than 0.5%)
	(4) Strive to reduce the environmental impacts of offices	<ul style="list-style-type: none"> Reduce paper usage, trash and electricity consumption of offices Promote green purchasing Encourage business partners to go green
III. Enhance the environmental management system	(1) Expand Environmental Management System (EMS) within the supply chain	<ul style="list-style-type: none"> Encourage designated affiliates and consolidated subsidiaries to acquire ISO14001 certification or maintain a JX Nippon Oil & Energy Group-compliant EMS Help dealerships establish EMS

Environmental Management System

The JX Nippon Oil & Energy Group has established an Environmental Management System (EMS) in order to steadily execute the Medium-term Environmental Management Plan created based upon its environmental policy.

As part of our EMS operations, we have established environmental targets for each company and each department. Actions are being taken to achieve these targets following the plan-do-check-action (PDCA) cycle.



Global Warming Prevention Measures

Fundamental Approach

The JX Nippon Oil & Energy Group is constantly aware of environmental impacts throughout its entire supply chain. In addition to improving energy efficiency in refining and production phases, which represent our core business activities, and reducing fuel consumption during the transport of products, we are striving to reduce greenhouse gas emissions and prevent global warming by supplying products such as biogasoline. We will also utilize the Kyoto Mechanisms to prevent global warming outside of Japan and actively work to preserve biodiversity through environmental contribution activities.

Efforts to Reduce CO₂ Emissions

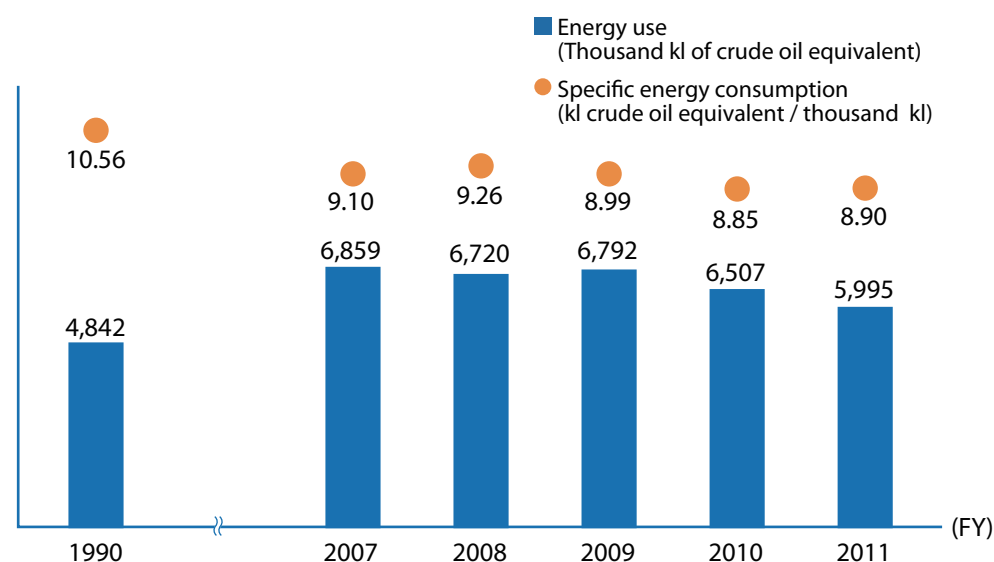
Measures during Refining

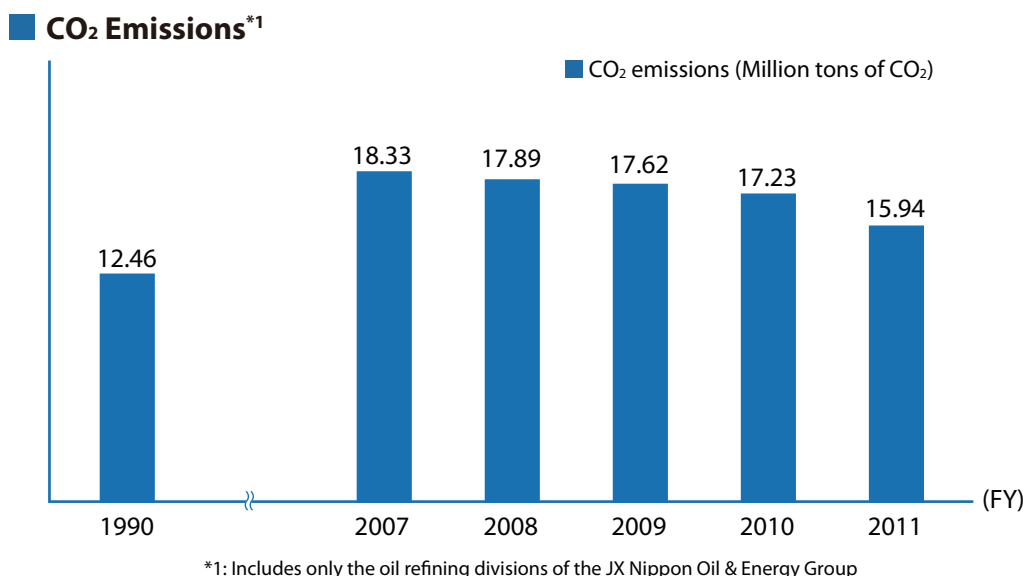
Nearly 80% of the JX Nippon Oil & Energy Group's CO₂ emissions originate from refining. As a result, we consider improving the energy consumption efficiency of refining to be one of our most important tasks going forward. To that end, our Medium-term Environmental Management Plan contains the target to reduce specific energy consumption from refining by 3% compared to fiscal 2009. We have initiated a wide range of energy conservation activities toward this goal, including the development and implementation of cutting edge technologies, improvements to our production processes, and reduction of heat loss.

These activities are expected to help us cut our use of energy much more than the average 13% reduction compared to fiscal 1990 levels called for by the petroleum industry (Petroleum Association of Japan) for the period from fiscal 2008 to fiscal 2012.

In fiscal 2011, our specific energy consumption was 15.7% less than in fiscal 1990, representing a drop from 10.56 to 8.90. This is the same effect as reducing our CO₂ emissions by 2.97 million tons.

■ Energy Use and Specific Energy Consumption*1



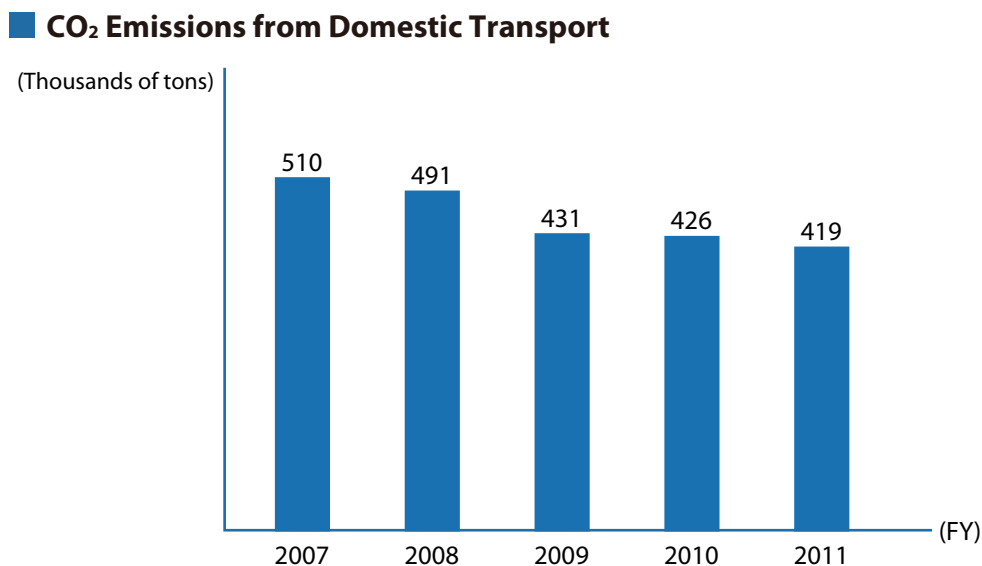


Measures in Logistics

The JX Nippon Oil & Energy Group has compiled a mid- and long-term energy reduction plan (target reduction of 1% annually) for its logistics operations based on Japan’s revised Energy Saving Act. Specific measures under this plan focus on efficiencies in logistics, such as optimizing transport routes, consolidating oil depots, and increasing the size of tank trucks and oil tankers, as well as on reducing fuel consumption, such as with idling stops.

CO₂ Emissions from Domestic Transport

In fiscal 2011, our CO₂ emissions associated with fuel consumption in domestic transport totaled 419 thousand tons, representing a 2.8% drop over fiscal 2009 levels.



*The above represents quantitative data reported as a specific consigner under Japan’s revised Energy Saving Act.

Promoting Environmental Contribution Activities

The JX Nippon Oil & Energy Group actively supports employees volunteering in activities for the betterment of the environment as well as provides environmental education opportunities for children and employees. We also introduce our environmental initiatives through booths hosted at exhibitions, trade fairs and other events.

▶ See *Environmental Protection* section on page 45

Utilizing the Kyoto Mechanisms

Joint Implementation Project for the Recovery and Effective Use of Associated Gas at the Yety-Purovskoe Oil Field in Russia

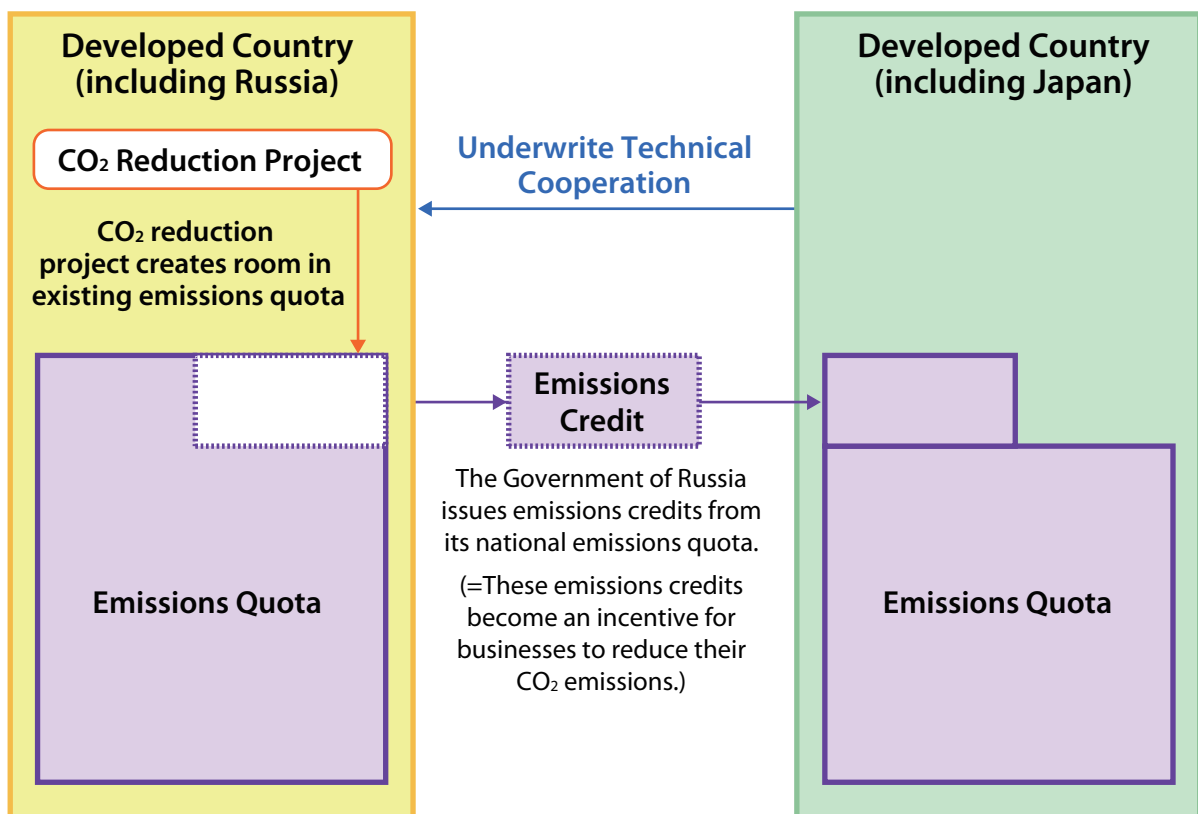
Under this project, associated gas from the Gazprom Neft-owned Yety-Purovskoe oil field located in the Yamalo-Nenets Autonomous Okrug in Russia that had been incinerated is now being recovered using a newly constructed pipeline and supplied to other parts of Russia as fuel.

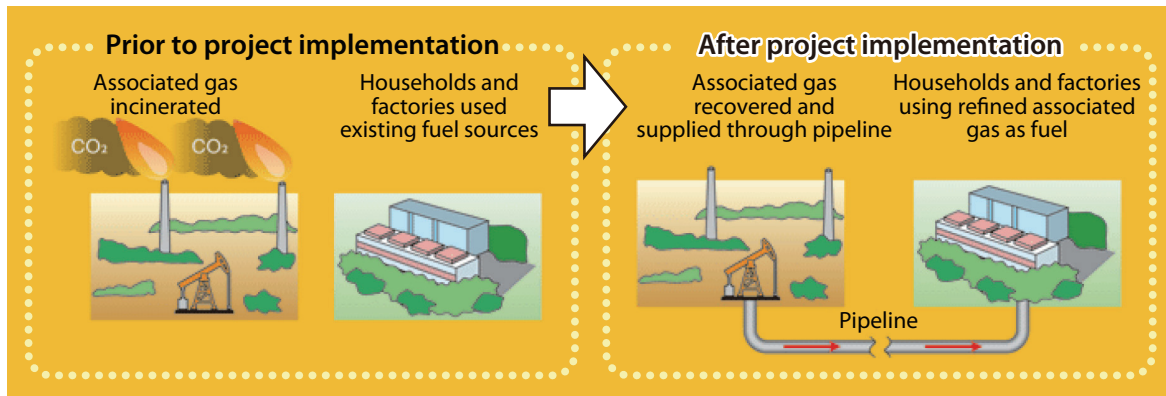
JX Nippon Oil & Energy has been involved in this project since the commercialization study phase as the developer in cooperation with Mitsubishi Corporation and Gazprom Neft, one of Russia's largest oil companies. Our aim was to provide technical assistance for the issuance of emissions credits and prepare the project design document, using our experience from the clean development mechanism (CDM) project at the Rang Dong oil field in Vietnam. On July 23, 2010, the Government of Russia approved this project as the country's first-ever joint implementation project. Following this, Russia issued its first emissions credits in January 2011.

A joint implementation project represents one method for reducing greenhouse gas emissions stipulated in the Kyoto Protocol in which two developed nations cooperate to initiate a greenhouse gas reduction project in either of their countries. Based on the emissions reductions from this project, the country implementing the project can then issue emissions credits.

To date, emissions credits for a total of 1.9 million tons of CO₂ emission reductions have been issued through joint implementation projects initiated between August 2009 and the end of March 2012. Additional emissions credits equivalent to 400 thousand tons of CO₂ emission reductions are expected to be issued by the end of December 2012. The above project will no longer be able to issue emissions credits after the Kyoto Protocol's first commitment period expires after 2013, but it will continue to reduce CO₂ emissions in Russia.

Joint Implementation Project (JI)

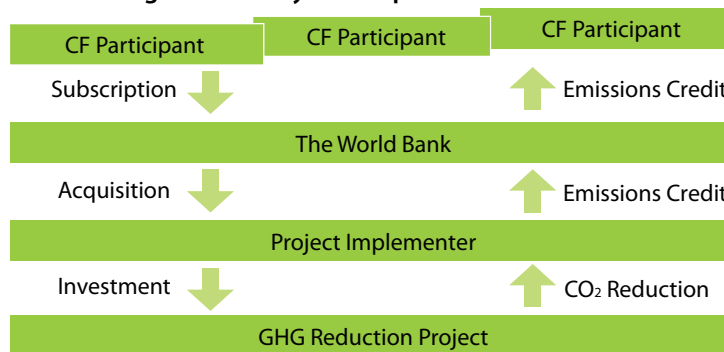




Involvement in the World Bank's Community Development Carbon Fund

JX Nippon Oil & Energy participates in the World Bank's Community Development Carbon Fund (CDCF). Through this fund, monetary subscriptions collected by the World Bank from governments and corporations are used to support small-scale projects (renewable energy projects such as wind or solar power generation) initiated by developing countries to reduce their greenhouse gas emissions and improve the standard of living for their people. Participating parties are allocated emissions credits equivalent to the CO₂ reduction amount achieved by these projects.

Fig. Community Development Carbon Fund



Involvement in the Japan Greenhouse Gas Reduction Fund (JGRF)

The Japan Greenhouse Gas Reduction Fund (JGRF) purchases emissions credits from developing countries and Eastern European countries and allocates these to fund participants. The fund, which has a total capitalization of 141.5 million dollars, was established by the Japan Bank for International Cooperation (JBIC), the Development Bank of Japan and Japanese corporations. JX Nippon Oil & Energy is the largest participant in the fund with a subscription totaling 12 million dollars.

We have also made an investment in Japan Carbon Finance, Ltd., which procures emissions credits from funds provided by the JGRF, and maintain a seat on its board of directors.

Investment in Japan CCS Co., Ltd.

The acronym CCS* refers to technologies for separating and capturing large amounts of CO₂ produced from oil and gas fields, plants or thermal power plants, and then injecting this CO₂ deep underground for storage.

These technologies help to reduce large amounts of CO₂ emissions before they enter the atmosphere, making them both highly practical and fast-acting. Nevertheless, research still is necessary on development of low cost separation and capturing technologies as well as the selection and assessment of geological strata that can safely and securely store the carbon. As a result, verification testing projects are now underway around the world.

In May 2008, Japan's Ministry of Economy, Trade and Industry established Japan CCS Co., Ltd. to perform preliminary studies in advance of verification testing in Japan. Based on the results of its onsite studies performed over the last four years, a location in Tomakomai, Hokkaido was selected for a verification testing project that was recently initiated in fiscal 2012.

JX Nippon Oil & Energy made an investment in Japan CCS as its founding corporate investor in order to support the commercialization of CCS technologies that help reduce CO₂ emissions in Japan. Today we continue to be involved in its business operations. Japan CCS now has a total of 36 corporate investors, which include companies from the power and petroleum development sectors.

*CCS: Carbon Dioxide Capture and Storage

Biodiversity Preservation Measures

Fundamental Approach

The JX Nippon Oil & Energy Group established the “JX Nippon Oil & Energy Group Guidelines on Biodiversity” in 2010. Based on our fundamental policy that states, “We will take measures considerate of biodiversity in every aspect of our business activities under the recognition that our business activities are deeply related to the Earth’s biodiversity,” we will ascertain and analyze the impacts of our business activities on biodiversity, strive to make improvements, as well as take part in activities that contribute to biodiversity preservation, such as nature protection and environmental education.

JX Nippon Oil & Energy Group Guidelines on Biodiversity

● JX Nippon Oil & Energy Group Guidelines on Biodiversity

● Basic Stance

We will take measures considerate of biodiversity in every aspect of our business activities under the recognition that our business activities are deeply related to the Earth’s biodiversity

● Action Policy

1. We will ascertain and analyze the impacts of our business activities on biodiversity as well as strive to make improvements.
2. We will promote activities that contribute to biodiversity preservation, such as nature protection and environmental education.
3. We will present and share information on our efforts to preserve biodiversity.

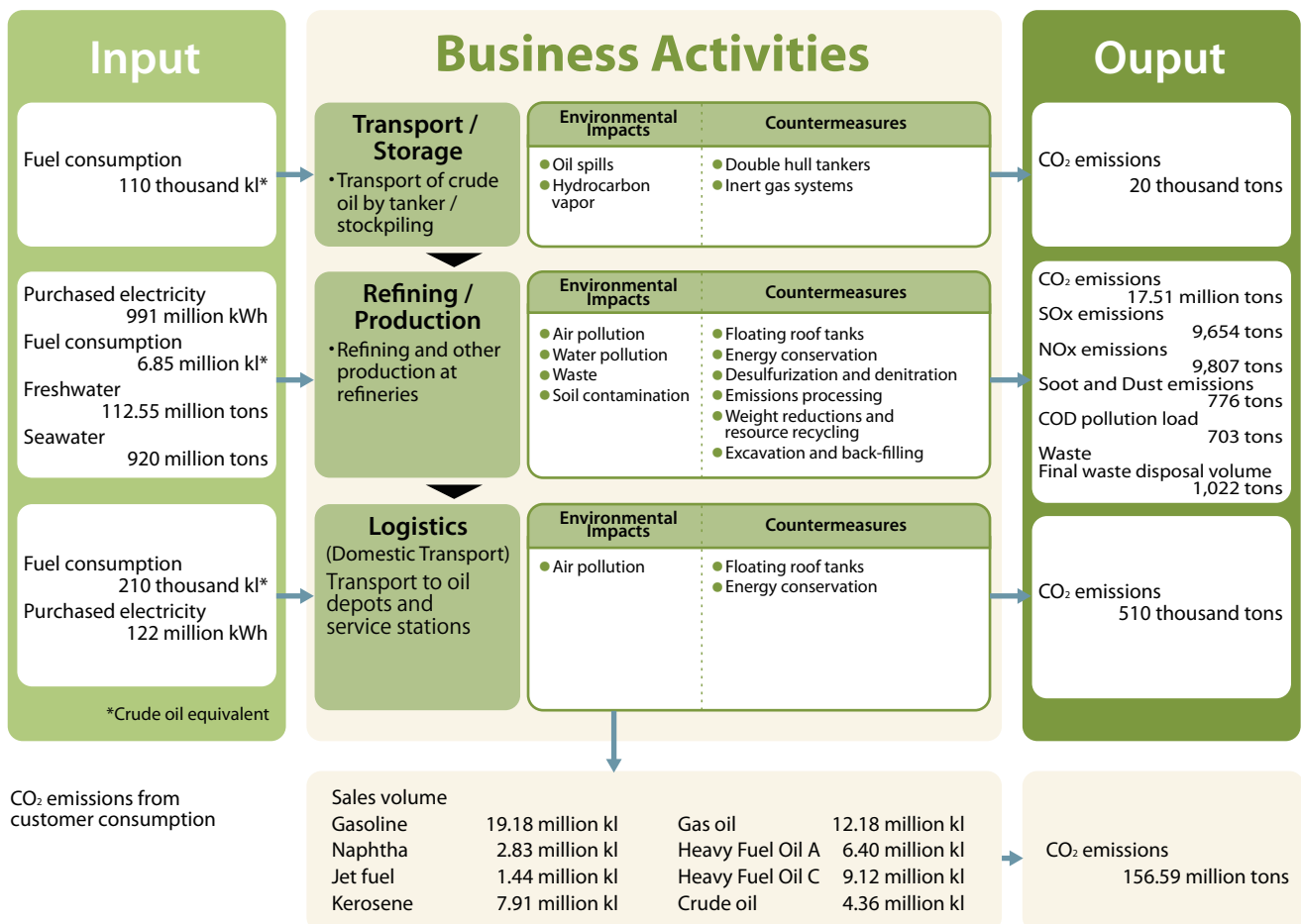
Activities for Reducing Our Environmental Impacts

Fundamental Approach

The JX Nippon Oil & Energy Group engages in business operations fully cognizant of the impacts they have on the Earth's environment and is proactively working to reduce waste and its burden on the natural environment, including the soil, the air and the water.

Material Balance

The following figure illustrates our environmental impacts throughout the entire supply chain, spanning from transport and storage through to consumption, in fiscal 2011. As an integrated energy company, the JX Nippon Oil & Energy Group is proactively working to reduce its CO₂ emissions in light of the impacts energy consumption has on the Earth's environment.



Soil Contamination Studies and Countermeasures

The JX Nippon Oil & Energy Group performs systematic studies on all land that carries the potential for soil or groundwater contamination and initiates proper countermeasures when needed to address pollution. We are also working hard to prevent soil contamination before it occurs by enhancing daily and regular inspections of our equipment as well as upgrading facilities where applicable.

Track Record of Studies and Countermeasures

The JX Nippon Oil & Energy Group performs suitable soil surveys on its company-owned properties as part of its ongoing commitment to reduce environmental impacts.

The following table presents our surveys performed as part of real estate transactions and countermeasures implemented in fiscal 2011.

Table Soil Surveys and Countermeasures in Fiscal 2011

(millions of yen)

Category	Surveys		Countermeasures	
	Cumulative	Total	Cumulative	Total
Service stations	383	658	82	1,696
Oil depots	15	206	3	181
Refineries / Terminals	8	6	2	16
Total	406	870	87	1,893

Soil Contamination Reporting and Published Properties in Fiscal 2011

Category	Location	Survey Results				Status
		Soil		Groundwater		
		Substance	Scale Factor	Substance	Scale Factor	
Idle Land	Aichi	Lead	7.1	–	–	Countermeasures completed
	Hokkaido	Benzene	4.5	Benzene	5.2	Countermeasures underway
	Okayama	Lead	3.0	–	–	Countermeasures completed
	Osaka	Lead	4.0	–	–	Examining countermeasures
	Okayama	Lead	5.2	–	–	Countermeasures completed
	Nagano	Lead	Contents: 2.1 Elution: 1.1	–	–	Countermeasures completed
Operating	Aichi	Benzene	3.8	Benzene	210.0	Countermeasures underway
	Miyagi	Benzene	43.0	Benzene	5700.0	Countermeasures underway
	Aichi	–	–	Benzene	85.0	Countermeasures underway

Measures for the Future

As part of the JX Nippon Oil & Energy Medium-term Environmental Management Plan for Fiscal 2010 to Fiscal 2012 we are continually working to reduce our environmental impacts by performing soil contamination studies and implementing countermeasures where needed. Two specific examples of our efforts are presented below.

1. At operating facilities, we continually ensure that service stations complete daily management surveys on their facilities to prevent spills offsite before they happen. We are also taking steps to raise awareness among operators and enhance the scope of daily inspection work. Gasoline storage tanks at service stations that have reached a certain age are reinforced under the guidelines of Japan's Fire Service Act to help prevent spills before they occur.



Tank replacement work in progress

2. At facilities that have been decommissioned, we perform systematic surveys and initiate countermeasures where needed. We are also in the process of researching, developing and commercializing new lower cost and more environmentally-friendly cleanup technologies.



Soil survey work in progress

VOC Reduction Measures

The JX Nippon Oil & Energy Group continually implements measures at its facilities and for its equipment to help prevent the release of volatile organic compounds (VOCs).

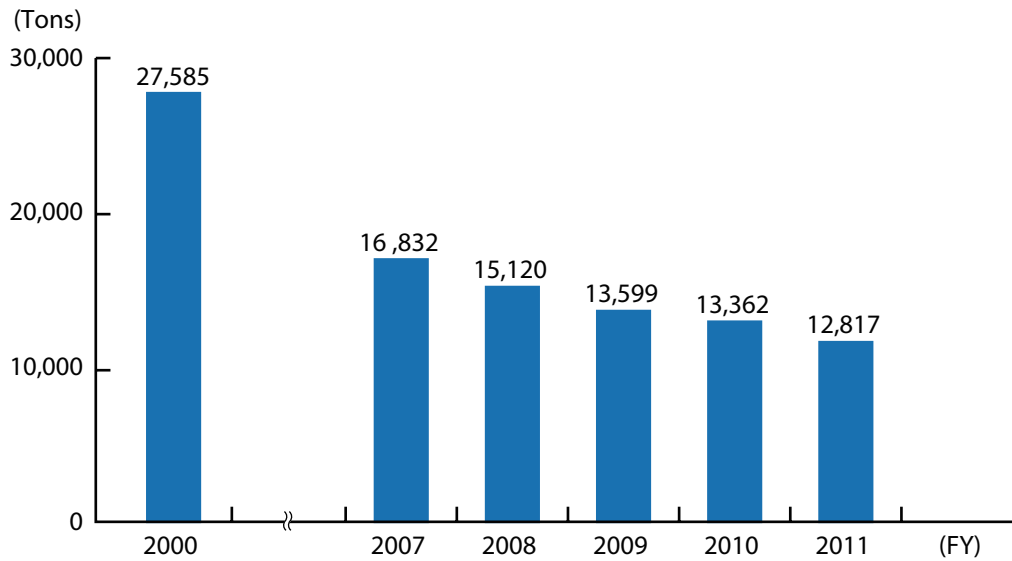
Measures at Refineries

Measures to Reduce VOC Emissions

VOCs are subject to emissions regulations stipulated by Japan's Air Pollution Control Act, while the Government of Japan also established a target for fixed sources of VOC emissions, including factories, to reduce their emissions 30% compared to fiscal 2000 levels by fiscal 2010.

The Petroleum Association of Japan also created a voluntary action plan in fiscal 2005 that requires members to reduce their VOC emissions 30% compared to fiscal 2000 levels. In response to this, the JX Nippon Oil & Energy Group has initiated various measures for its storage tanks and shipment facilities, which had helped it reduce VOC emissions by more than 50% of fiscal 2000 levels as of fiscal 2009.

VOC Emissions from Our Refineries and Oil Depots

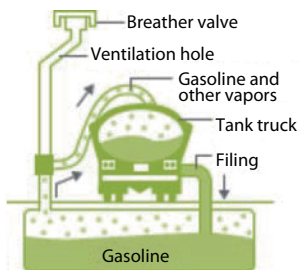


Measures at Our Service Stations

Fuel Oil Vapor Capture

Vapors that contain hydrocarbons are released into the air whenever gasoline is pumped from a tank truck into a storage tank at a service station. These vapors are not only a source of photochemical smog, but also cause irritating odors in the neighboring communities and can have negative health consequences on both customers and employees alike.

Therefore, we have installed recovery apparatuses on the ventilation ducts of service station storage tanks that enable tank trucks to collect these vapors.



Capturing hydrocarbon vapors

Waste Reduction Measures

The JX Nippon Oil & Energy Group is working to reduce its waste-to-landfill ratio by properly managing waste and recycling in order to fulfill the vision of a sustainable recycling-oriented society.

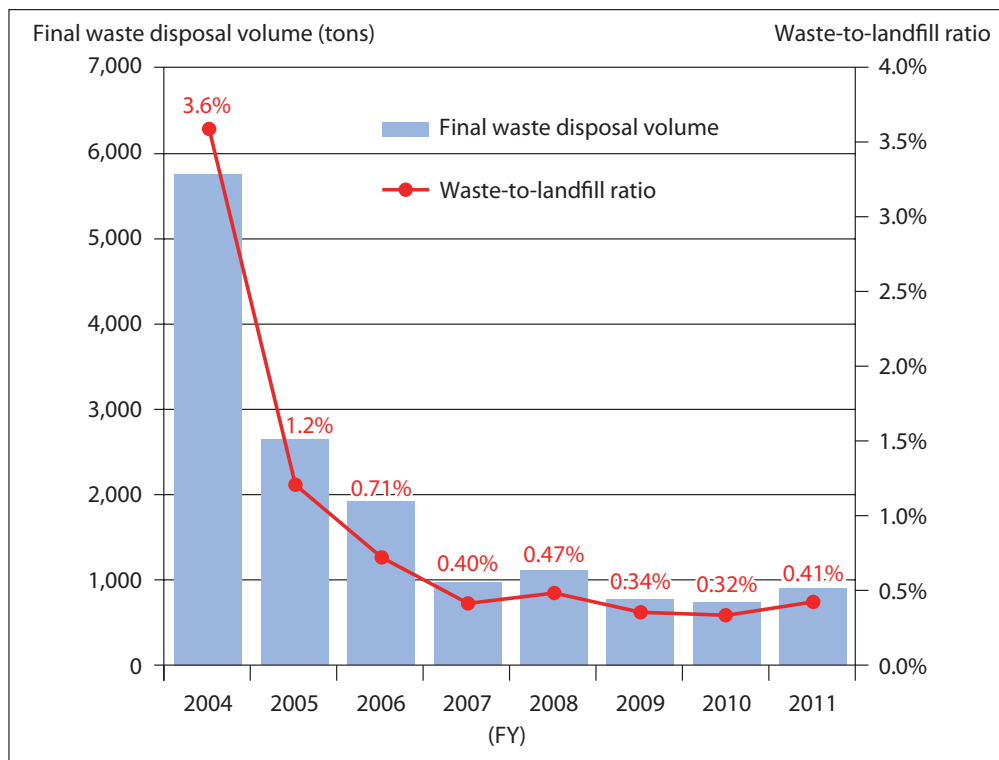
Reducing Our Waste-to-Landfill Ratio

The JX Nippon Oil & Energy Group engages in Zero Emission Plus* activities that help reduce its waste-to-landfill ratio through proper waste management and recycling programs in order to fulfill the vision of a sustainable recycling-oriented society.

Our refining division, which produces the largest volume of waste, is actively working to recycle sludge, waste acid, collected particulate matter, and waste catalysts.

Unfortunately, our final waste disposal volume increased year on year in fiscal 2011 due to oil spills caused by the Great East Japan Earthquake.

*Zero Emission Plus: Final waste disposal volume / Total waste produced < 0.5%



Waste Recycling

We recycle the following waste using the most ideal method for each.

1. Sludge

Sludge produced from water treatment processes is mainly recycled as a raw material for cement after it is dehydrated and dried.

2. Waste acid (waste vitriol)

Vitriol used to make high-octane gasoline is recycled at special recycling service providers after use.

3. Collected particulate matter

Particulate matter contained in flue gas is collected using an electrostatic precipitator and recycled as a raw material for cement. After undergoing thermal recycling, collected particulate matter can also be recycled for use in roadbed materials.

*The act of capturing energy emitted during the waste incineration process and utilizing it to generate electricity.

4. Waste catalysts

Catalysts used during the desulfurization process for crude oil eventually lose activity and become waste catalysts. Useful metals such as vanadium and molybdenum contained in waste catalysts are collected and recycled to every extent possible by special metal collection and processing companies.

5. Waste asbestos

Insulation containing asbestos collected during the maintenance and repair of equipment is melted down to render it harmless and then recycled in roadbed materials.

Implementation of Electronic Manifests

JX Nippon Oil & Energy began encouraging the full-scale shift to electronic manifests in fiscal 2007. Since then, we have installed electronic manifest systems at each of our business sites and called on our waste transport as well as contract processing partners to cooperate with us in this regard. As a result, by fiscal 2009 we were able to switchover nearly 95% of all manifests, or about 9,000, to electronic manifest systems.

In recognition of these efforts, we received the Reduce, Reuse, Recycle Promotion Council Chairman's Award in fiscal 2010.



Air Pollution Prevention Measures

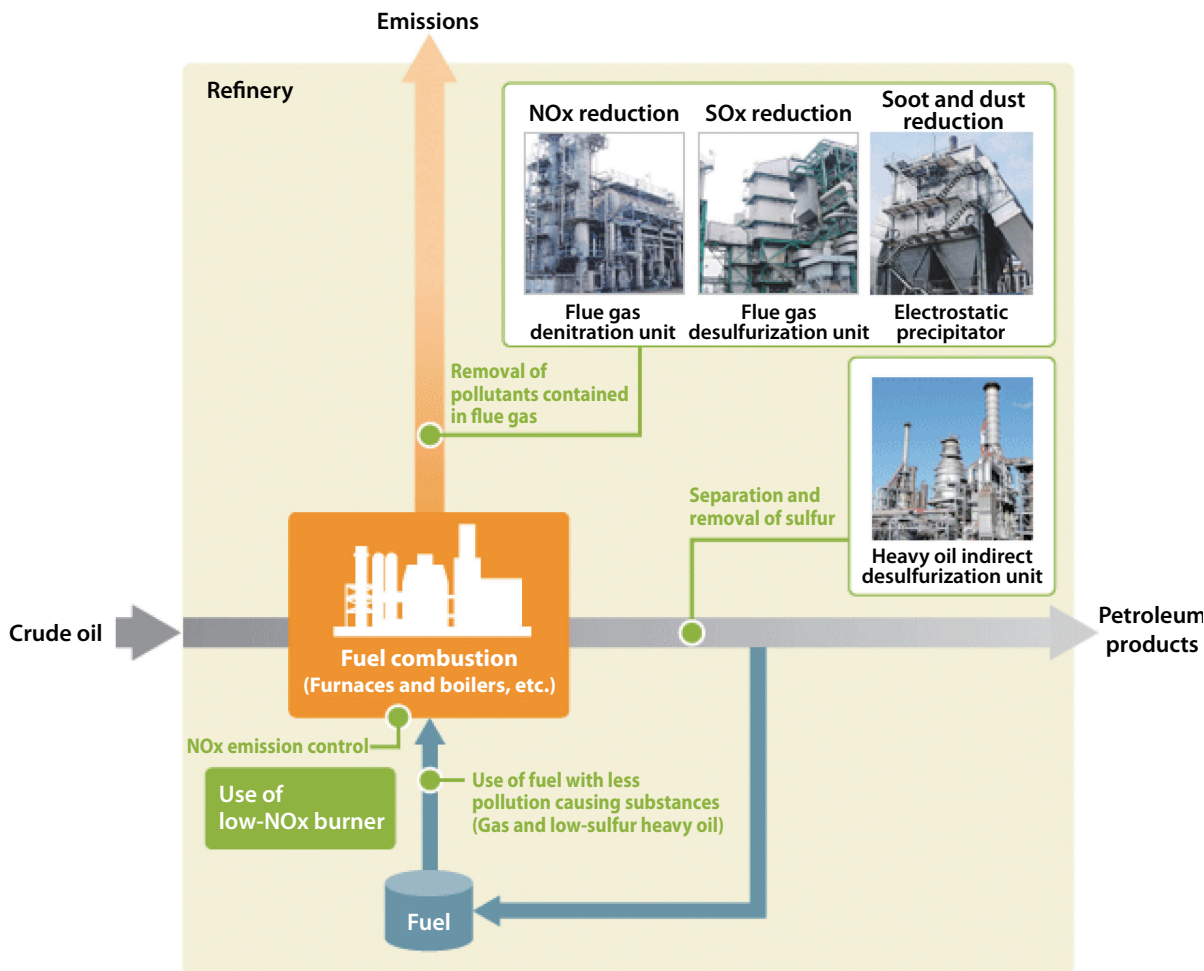
The JX Nippon Oil & Energy Group has initiated a wide range of measures to help control its release of air pollutants into the atmosphere, such as SOx, NOx and soot and dust.

Controlling the Release of Air Pollutants

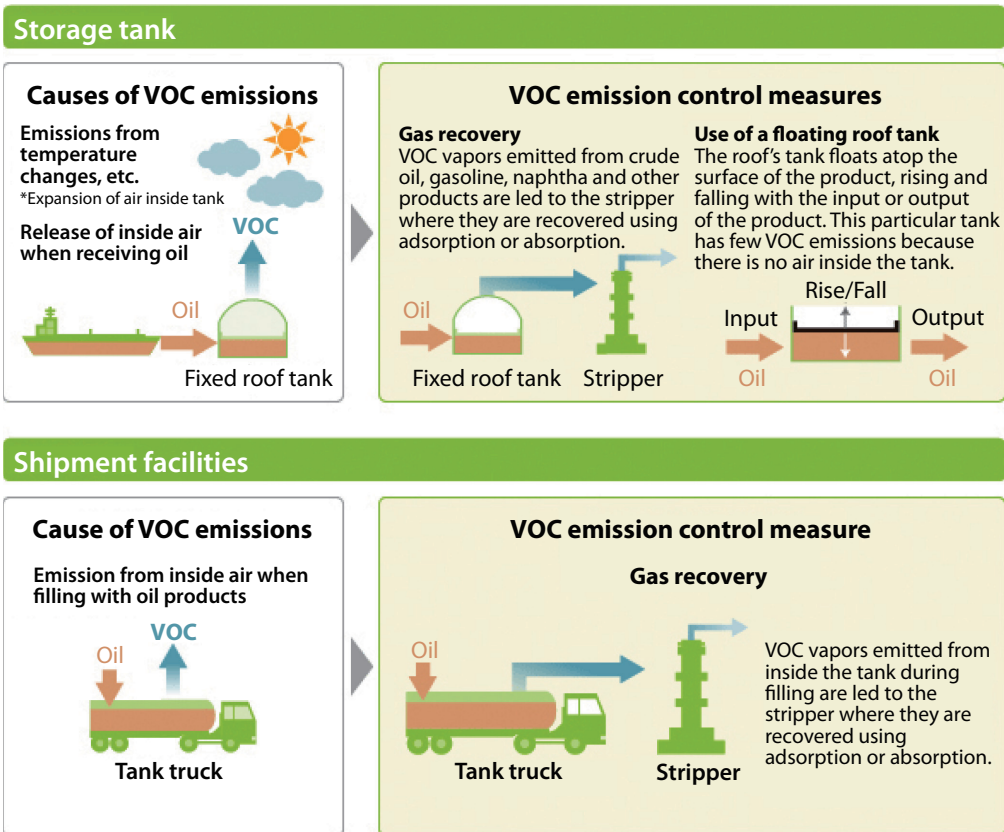
The petroleum product manufacturing process consumes fuel as the necessary energy for distillation and chemical reactions. As a result, sulfur oxides and other air pollutants are released when incinerating impurities found in this fuel. Refining, storage and shipment facilities for crude oil and petroleum products are essentially closed off to the environment, but transferring products to fixed roof tanks or filling tanker trucks causes VOCs, one of the causes of photochemical smog, to be released into the air.

The JX Nippon Oil & Energy Group constantly monitors emissions of these air pollutants and takes the following steps to control their release into the atmosphere.

Controlling the Release of Air Pollutants from Flue Gas



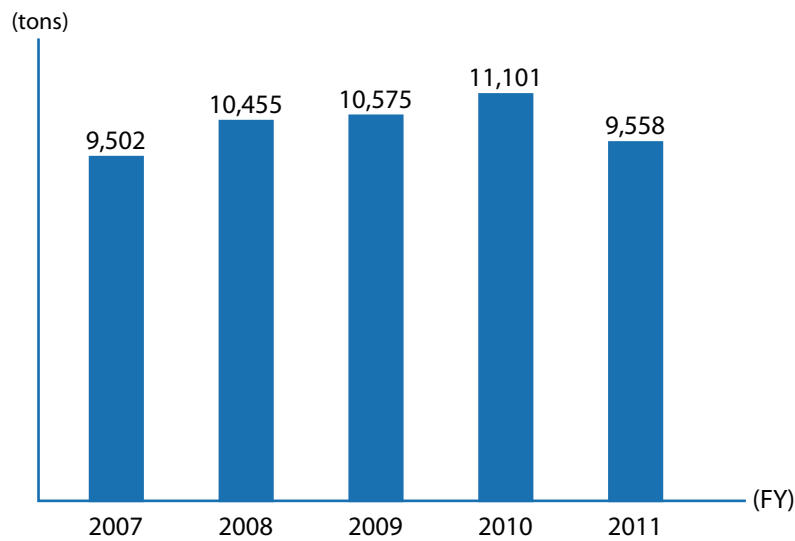
VOC emissions at refineries and control measures



Reducing Sulfur Oxide (SOx) Emissions

We use low-sulfur content gas in our furnaces. We also use desulfurization unit to cleanse sulfur oxide in flue gas produced from our furnaces and boilers, which has enabled us to reduce our emissions significantly below legal limits.

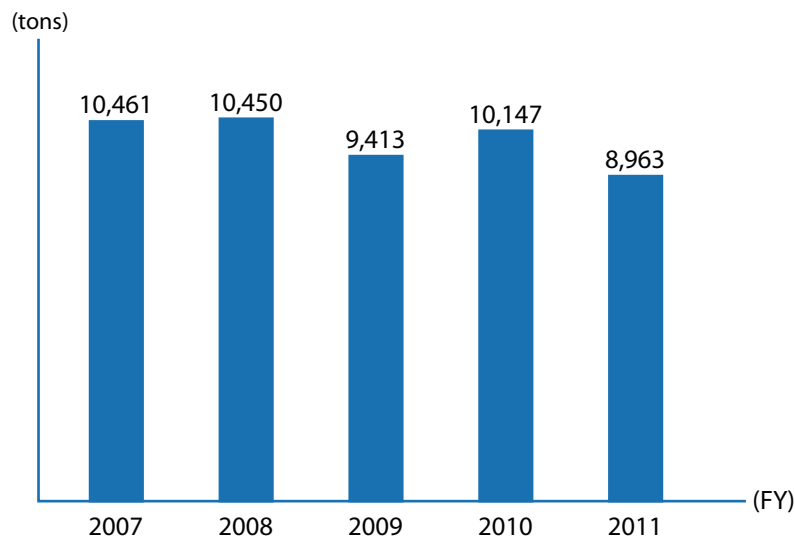
SOx Emissions at Our Refineries



Reducing Nitrogen Oxide (NOx) Emissions

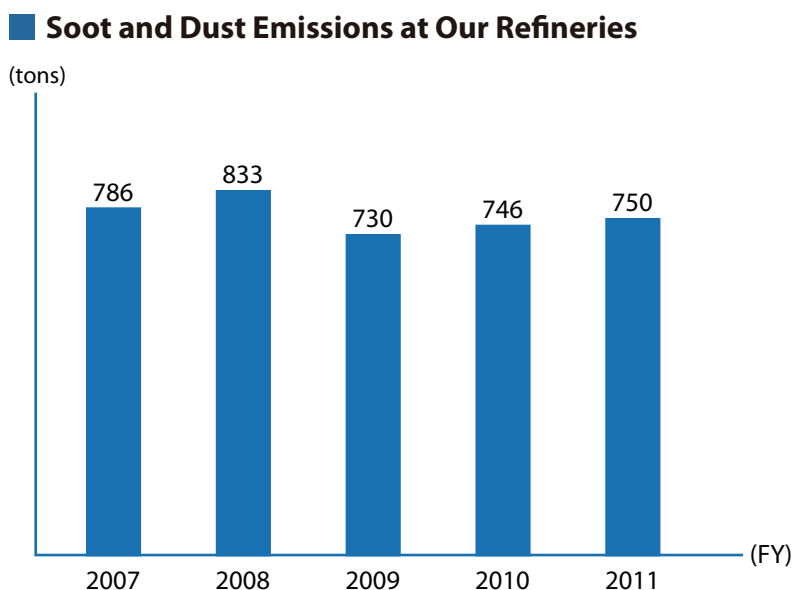
We use low-nitrogen content fuel in our furnaces and boilers as well as low-NOx banners that prevent the generation of NOx in incinerators. We also use desulfurization unit to cleanse flue gas, which has enabled us to reduce our emissions significantly below legal limits.

NOx Emissions at Our Refineries



Reducing Soot and Dust Emissions

We have installed electrostatic precipitators on boilers that use large amounts of heavy oil in order to reduce soot and dust emissions.



Mizushima Refinery Fails to Comply with Regular Inspections under the Air Pollution Control Act

In February 2011, we found out that certain facilities at our Mizushima Refinery and at group company Wakayama Petroleum Refining's Kainan Plant failed to comply with soot and dust concentration measurements under the Air Pollution Control Act.

Following this discovery, we initiated a thorough check of our measurements not only for soot and dust, but also other pollutants included in the Air Pollution Control Act such as SO_x and NO_x at all 16 of our group production sites in Japan. The results showed that, with the exception of the Mizushima Refinery and Wakayama Petroleum Refining's Kainan Plant, all other facilities were in full compliance with the Air Pollution Control Act.

Going forward, we will take steps to strengthen our environmental management system and ensure proper compliance with laws in order to prevent any reoccurrences. We will accomplish this by organizing employee training programs on environmental laws that include the above violations, performing an annual audit on the environmental measurements taken by pollution control managers at each of our business sites, and having our head office implement an annual audit on the audits performed at each business site.

Water Contamination Prevention Measures

The JX Nippon Oil & Energy Group has initiated a wide range of measures for preventing water contamination.

Measures at Refineries

● Effluent Control

Effluent from our refineries is treated according to the system illustrated in the figure below. We carefully monitor the status of effluent treatment using indicators that show pollution concentration such as chemical oxygen demand (COD).

COD Pollution Load at Refineries

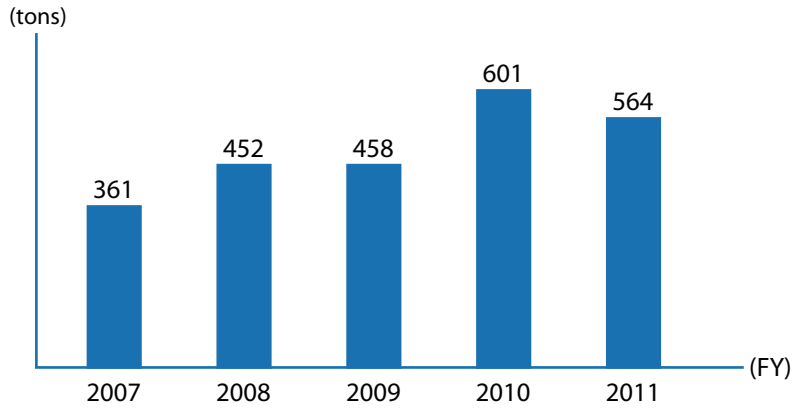
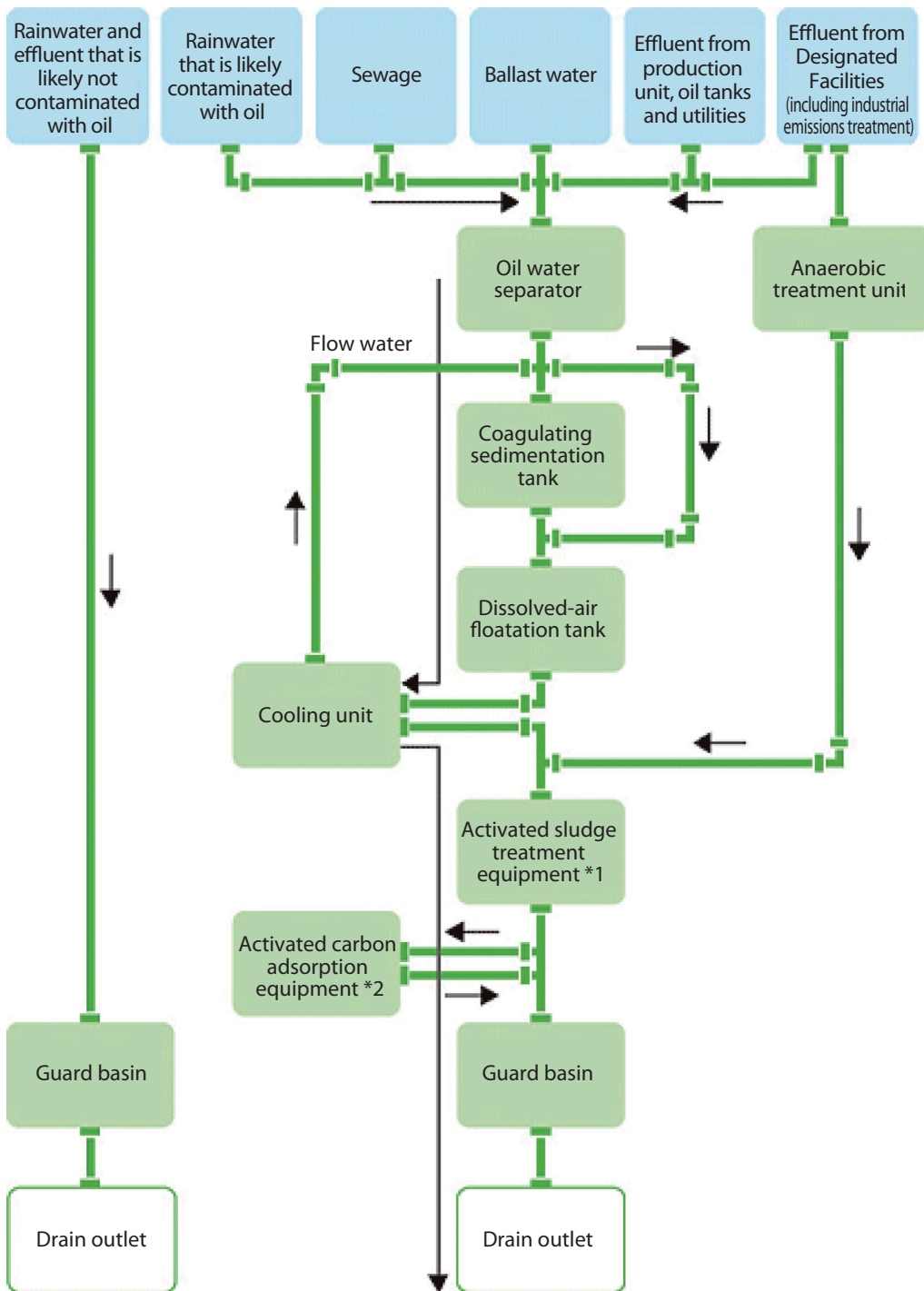


Fig. Water Treatment System



*1: Activated sludge treatment unit



*2: Activated carbon adsorption unit



Measures during Transport

Stepping up Our Fight to Prevent Marine Pollution

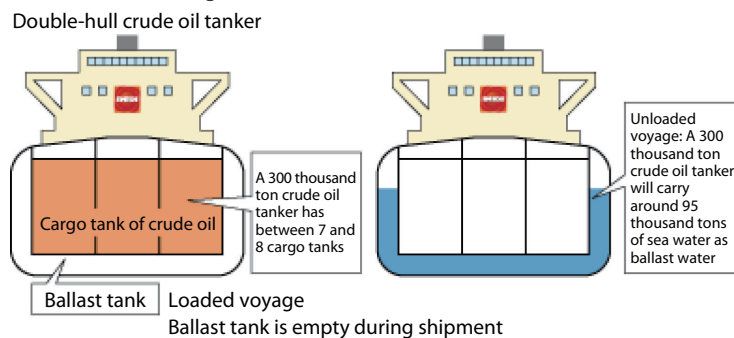
MARPOL73/78 adopted by the International Maritime Organization (IMO) prohibits the dumping of waste into the world's oceans and requires that signatories take steps to prevent environmental pollution caused by oil.

The JX Nippon Oil & Energy Group fully complies with this convention. In addition, we do not dump incinerator ash defined in the convention into the sea, and instead take it back to land for proper disposal. These actions form a part of our much broader commitment to reduce our environmental impacts.

Preventing Ballast Water from Disturbing Local Ecosystems

Oil tankers from Japan bound for oil producing countries carry ballast water (sea water) as a safety measure for unloaded voyages. Yet, this ballast water contains microorganisms and plankton that are in turn carried to the faraway waters off oil producing countries. In compliance with the demand of crude oil shipping ports, the JX Nippon Oil & Energy Group replaces this ballast water while still on the open ocean to maintain the ecological balance that exists in the coastal waters off oil producing countries.

Fig. Cross-section of a Crude Oil Tanker



Using Ship Bottom Paint that Does Not Contain Endocrine-disrupting Chemicals

We have switched to zinc-based paints after it was pointed out that tributyltin used in our ship bottom paint may be an endocrine-disrupting chemical. Although somewhat less effective against corrosion, we made the change because zinc-based paint has less of an impact on our marine ecosystems.

Measures at Service Stations

Recycling Car Wash Water

Our service stations consume large amounts of water for car washes. This is why we decided to install recycling equipment to reutilize between 80% and 90% of what was once disposed of as wastewater, ensuring an effective use of our limited water resources. Statistics show that each car wash uses about 150 liters of water, but when recycling 80% of this water, one car's worth of water can now be used to wash upwards of five cars.

Car washing machine with water recycling function



● Wastewater Treatment

All surface drainage at our service stations passes through an oil separator to remove oil and sludge prior to discharge.

Management of Chemical Substances

The JX Nippon Oil & Energy Group is firmly committed to the proper management of chemical substances.

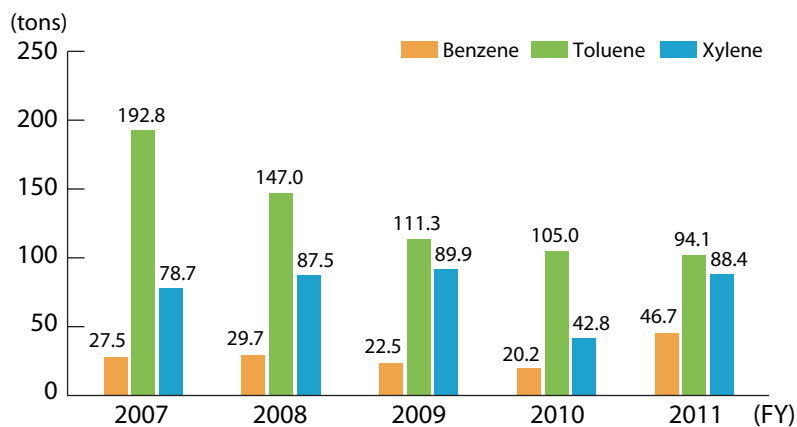
Monitoring and Managing the Release and Transfer Amounts of Chemical Substances

● Reporting under Japan's Pollutant Release and Transfer Register Act

We have been reporting the release and transfer amounts of designated chemical substances under Japan's Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Pollutant Release and Transfer Register Act) since April 2001.

In fiscal 2011, our petroleum refining division released and transferred a total of 468 tons of these substances, which mainly included benzene, toluene, and xylene, each an additive in gasoline. These chemicals were released and transferred into the air or water.

■ Release Amounts of Benzene, Toluene and Xylene*



*Includes only the petroleum refining division of the JX Nippon Oil & Energy Group.

Measures to Reduce Benzene Emissions

Environmental standards have been set for benzene, while Japan's Air Pollution Control Act designates benzene as a harmful air pollutant whose release must be controlled. Since 1996 Japan's industry has also voluntarily taken steps to reduce its benzene emissions. The JX Nippon Oil & Energy Group participates in the petroleum industry's voluntary management program for harmful air pollutants and has implemented the following measures to combat benzene emissions.

- Reduced benzene content of gasoline to less than 1%
- Changed all benzene tanks to floating roof tanks by fiscal 2001
- Stopped the land transport of benzene

Reducing the Environmental Impacts of Our Offices

The JX Nippon Oil & Energy Group is actively working to reduce the environmental impacts of its offices by promoting energy conservation, reducing waste and implementing green procurement.

Measures in Our Offices

● Energy Conservation in Our Offices



An employee turning off the lights during lunchtime

Our offices have initiated a variety of energy conservation measures, including turning off lights during lunchtime and in empty rooms, curbing electricity consumption of equipment not being used, changing room temperature settings and dressing down in the summer as part of our Cool Biz program.

● Reducing Waste from Our Offices

In addition to our refineries and plants, we are also actively working to reduce waste produced at our head office and branch offices, which includes following proper sorting and collection practices as well as reducing paper waste. We also collect waste oil and used oil filters at our service stations.



Waste sorting and collection box

Promoting Green Procurement

The JX Nippon Oil & Energy Group promotes green procurement as part of its commitment to reducing environmental impacts across its entire supply chain.

● Green Purchasing

We give priority to purchases of environmental-friendly office equipment and office supplies as well as have actively purchased lower emission vehicles for company use.

● **Sourcing Greener Materials**

We are sourcing greener materials under our Green Materials Procurement Guidelines.

We have created a list of designated substances to prevent purchases of production materials that contain hazardous substances.

We have also established standards for construction materials that dictate the use of recycled materials and avoidance of materials that contain hazardous substances.

● **Encouraging Our Business Partners to Go Green**

We continue to work together with our business partners to reduce their impacts on the environment. Specifically, we ask that our business partners implement ISO14001 compliant or equivalent environmental management systems based on our ENEOS Green Procurement Guidelines.

Developing and Supplying Environmentally-Friendly Products and Services

Fundamental Approach

The JX Nippon Oil & Energy Group develops and sells environmentally-friendly products and services that include petroleum products such as sulfur-free* gasoline and diesel, new energies such as fuel cells, and other functional products.

*Sulfur-free: Gasoline or diesel fuel that contains less than 10ppm sulfur.

Environmentally-friendly Products and Services

We offer a host of environmentally-friendly products and services that include petroleum products, such as sulfur-free gasoline and gas oil, that are less likely to cause acid rain or air pollution, cogeneration systems, fuel cells that utilize heat in addition to electricity and minimize transmission loss, as well as photovoltaic generation systems that produce power without the use of fossil fuels.

Fuel Oils

We offer a range of environmentally-friendly products including high octane fuels that help keep engines running clean and plant-based biogasoline.

- ▶ Environmentally-friendly High Octane ENEOS Vigo (<http://www.no.ejx-group.co.jp/carlife/product/vigo/index.html>) (available only in Japanese)
- ▶ Biogasoline (<http://www.no.ejx-group.co.jp/carlife/product/biogasoline/index.html>) (available only in Japanese)
- ▶ Sulfur-free gas oil (http://www.no.ejx-group.co.jp/company/rd/intro/nenryo/e71_cordinne_sflo.html) (available only in Japanese)
- ▶ Sulfur-free gasoline (http://www.no.ejx-group.co.jp/company/rd/intro/nenryo/e71_cordinne_sfg.html) (available only in Japanese)

Lubricants

We offer a number of different lubricants, from machining oil to grease, for a variety of applications in the automotive, marine shipping, and general industry sectors. We are also developing new more energy efficient, longer-life and environmentally-friendly lubricant products.

- ▶ ENEOS Oil Series (<http://www.no.ejx-group.co.jp/carlife/product/oil/index.html>) (available only in Japanese)
- ▶ ENEOS INDUSTRIAL Series (http://www.no.ejx-group.co.jp/business/lubricants_e/eco/e71_buluec_industrial.html) (available only in Japanese)
- ▶ ENEOS FLEET Series (http://www.no.ejx-group.co.jp/business/lubricants_e/eco/e71_buluec_fleet.html) (available only in Japanese)

New Energy

We sell the ENE-FARM Residential Fuel Cell System, which provides high efficiency energy combining both heat and electricity to reduce transmission loss and serve as a standalone system for generating electricity onsite. We also have photovoltaic power generation systems that help achieve the vision of a sustainable low-carbon society. We are also able to offer combined systems that provides the best blend of both technologies to achieve even greater degree of energy efficiency and self-sufficiency

- ▶ ENE-FARM Residential Fuel Cell System (<http://www.no.ejx-group.co.jp/lande/product/fuelcell/index.html>) (available only in Japanese)
- ▶ Photovoltaic power generation systems (<http://www.no.ejx-group.co.jp/lande/product/solar/index.html>) (available only in Japanese)

Petroleum Use

We have leveraged our petroleum powered cogeneration system technologies and environmentally-friendly high efficiency boilers to offer optimized systems for providing heat and electricity based on customer demand.

- ▶ Cogeneration facilities (http://www.noe.jx-group.co.jp/business/industrial/esco/e71_buines_cogene.html)
(available only in Japanese)
- ▶ Environmentally-friendly high efficiency boilers (http://www.noe.jx-group.co.jp/business/eco/boiler/eco_boiler/index.html)
(available only in Japanese)

Other Energy

We sell natural gas and LNG. When burned, these fuels do not generate SO_x, a cause of acid rain, and produce few NO_x or CO₂ emissions, causes of global warming and air pollution, making both an environmentally-friendly and clean source of energy.

- ▶ Liquefied natural gas (LNG) (http://www.noe.jx-group.co.jp/business/industrial/lng/e71_buinln_jigyo.html)
(available only in Japanese)

Other Functional Products

- ▶ Recosul (modified sulfur-solidified material) (<http://www.noe.jx-group.co.jp/business/material/ecosulfur/recosul/index.html>)
(available only in Japanese)

JX Nippon Oil & Energy CSR Report

Editorial Policy for the 2012 Edition

The two special feature sections of this report titled “Promises to the Future” cover JX Nippon Oil & Energy and its efforts as an integrated energy company to tackle key issues in terms of providing environmentally-friendly products, materials and services, to develop and popularize next generation energy solutions, and to provide stable supplies of petroleum, today’s mainstay source of energy.

Specific details pertaining to the company’s activities can be found in the Management Report, Corporate Citizenship Report and Environmental Report sections of this publication. Our goal is to always provide concise, easy-to-understand and honest disclosures. This is why information is also available on the JX Nippon Oil & Energy corporate website.

Going forward, JX Nippon Oil & Energy will continue to proactively disclose information and address feedback provided by society and all of its stakeholders so that it can become a trusted company that contributes to the future of energy as well as the establishment of a sustainable society.

Scope and Timeframe

Scope

JX Nippon Oil & Energy and its 27 main affiliates (including the refineries of the company and its affiliates)

Timeframe

April 2011 to March 2012

However, certain activities and plans that took place prior to March 2011 or after March 2012 have also been included.

Published

March 2013

(The next edition is slated for publication in March 2014)



Data appearing in this report is from the period spanning April 2011 to March 2012.
(This also includes certain activities and plans that took place prior to March 2011 or after March 2012.)