

8 Natural Environment Protection

Environmental Impact Assessment

Environmental impact assessment is a systematic process of evaluating the effects of large-scale development or facility construction on the environment before it is allowed to start in order to minimize the impact on the environment. It describes the process by which information about the environmental effects of an industrial project is collected, assessed and taken into account by public authorities and community residences in a decision making process.

As for our group, when we undertook an independent power generation project (IPP) in the premises of Toa Oil Keihin Refinery, environmental impact assessment is performed concerning the project before it started, and a plan was formulated so that the impact on the local environment would be minimized.

9 Preservation of Biodiversity

Biodiversity is the whole system in which life on earth has differentiated into various species according to varied habitats in the process of their evolutions in millions of years, and those various species form diversified living organisms while depending on each other. It is an important natural mechanism that is essential also for human beings to remain existent.

However, this unique world of biodiversity is endangered due to recent human activities such as landfills that cause tidal flats to disappear, deforestation projects that have destroyed a large number of habitats, and commercial captures that have drastically reduced populations of wild animals and plants.

To protect this biodiversity, a Convention on Biological Diversity was signed in 1993 under the initiative of the United Nations, and Japan also joined the convention.

The Shell group established "Biodiversity Standards" in 1999, and has actively been working to protect biodiversity. Showa Shell Sekiyu considers biodiversity to be an important issue and aims at building an internal structure to cope with the issue.

10 Provision of Eco-conscious Products and Services

Shell Pura

Shell Pura is eco-conscious high-octane gasoline developed to reflect customers' requests. It is presently sold in 24 capital and prefectures across the nation and has been well received by the market.



サルファーフリー ガソリン S-10ppm



サルファーフリー 軽油 S-10ppm

Sulfur-free Gasoline/Diesel Oil

Aiming at early provision of sulfur-free fuels (sulfur content: 10 ppm or less), Showa Shell Sekiyu is working to establish a manufacturing and supply structure within 2004.

Hydrogen Fuel/Hydrogen Stations for Fuel Cells

Participating in the "Japan Hydrogen and Fuel Cell Demonstration Project" by the Ministry of Economy, Trade and Industry and the "Hydrogen Refueling Station Pilot Program" by the Tokyo Government, Showa Shell Sekiyu started to operate an "Ariake Hydrogen Station," which is



the first station capable of supplying liquefied hydrogen and compressed hydrogen gas, in June 2003.

In addition, our Central Laboratory has been working to develop a hydrogen production system for hydrogen stations using a CPO (Catalytic Partial Oxidization) modification technology, in a project commissioned by the Petroleum Energy Center.

GTL (Gas To Liquids) Fuels

Showa Shell Sekiyu commenced a public road test for Japan's first GTL fuel in November 2003. GTL is a clean liquid fuel that is synthesized from natural gas and contains almost no sulfur or aromatic component. It attracts much attention as an environmentally friendly fuel that reduces toxic substances contained in exhaust gas, such as nitrogen compounds and monoxide.



In addition, the Shell group has announced its plan to build the world's first large-scale GTL plant in Qatar.

LNG Power Generation Business

In August 2003, Showa Shell Sekiyu established a planning company "Ogishima Power Co., Ltd." in cooperation with Tokyo Gas Co., Ltd. and Shell Gas BV and started preparations for the startup of operation of a large-scale power generation project (1.2 million kW) that uses LNG (liquefied natural gas), which is clean and environmentally friendly.

