

Environmentally Friendly Products

Basic Philosophy

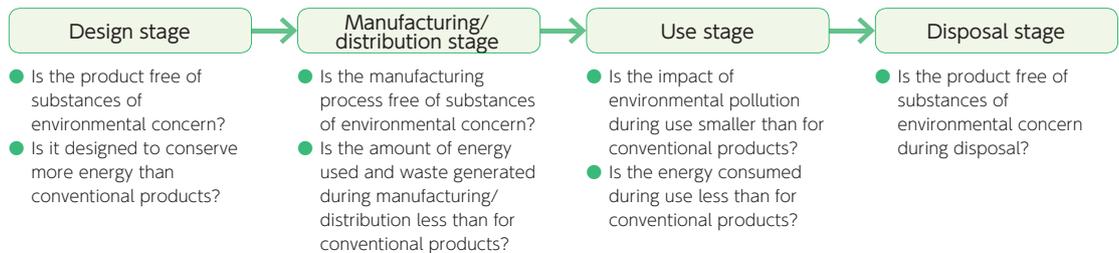
The NGK Spark Plug Group aims to contribute to improving the global environment through its products by making efforts to reduce the environmental burden throughout the lifecycle of its products, from raw material procurement to product disposal. Aside from efforts to reduce CO₂ emissions and waste during the manufacturing and distribution processes, we

are also endeavoring to produce environmentally friendly products by controlling the amount of energy involved in using and disposing of the product by customers and ensuring that they do not contain substances of environmental concern.

Product assessment

To reduce the environmental burden from procuring, using and disposing of raw materials, it is important to predict the environmental impact at the design stage, and to take prompt countermeasures when any negative impact is foreseen. To ensure this, we conduct product assessments when we develop new products or change the specifications of existing products.

During a product assessment, the existence of substances of environmental concern, the amount of energy used, etc. are confirmed at each of the design, manufacturing/distribution, use, and disposal stages. If the assessment determines that there is a significant environmental impact, countermeasures will be taken before development is continued.



Reducing environmental burden throughout the lifecycle

To reduce the environmental burden throughout the entire lifecycle of a product, we conduct an LCA (life cycle assessment) on our key products. LCA is a method giving an objective assessment of the impact on global warming and resource depletion throughout the entire lifecycle of a product. Making a more comprehensive, scientific and quantitative

assessment allows us to clarify present problems and their magnitude, and enables us to take appropriate measures. In the future, we will train our engineers in LCA, and by incorporating LCA into product assessment, we aim to reduce the environmental burden over the entire product lifecycle.

PICK UP

Development of the premium RX plug

The new premium RX plug is a next-generation spark plug with a maximized total performance. We have adopted a new material for the ruthenium-containing central electrode, and at the same time, modified the ground electrode shape to give it a projected platinum tip. This improves the ignitability performance, as well as comprehensively improving other performance aspects including fuel efficiency, anti-fouling performance and life. With lower fuel consumption, we can expect reduced CO₂ emissions during use, an important lifecycle stage.



Test vehicle: 2,400 cc 4-cylinder DOHC 4 valves
 Test fuel: Regular gasoline
 Test mode: JC08H mode

Communication

Basic Philosophy

For The NGK Spark Plug Group to continue its business operations, it is essential to improve our coordination with local communities and build trust with society. We feel that the best way to build this trust is to provide information on the Group's environmental activities, and we are endeavoring to disclose information in an accurate and easy-to-understand way to improve communication.

Report on environmental activities



The Group issues a CSR Report (formerly Environmental & Social Report) and site-specific environmental reports*1 to give a better understanding of our environmental preservation activities.

The Environment & Social Report 2010 issued in September 2010 received the Incentive Prize in the Environmental Report Category at the 14th Environmental Communication Awards hosted by the Ministry of the Environment and the Global Environmental Forum. We will continue to aim for the disclosure of accurate and easy-to-understand information.



Environment & Social Report 2010



Site-specific environmental reports (Japanese Only)

Donating to tree-planting activities

Part of the proceeds from the autumn "Change to an Eco-Plug!" campaign held from October to December 2009 was donated through an NPO to tree-planting activities in Kuma-mura in Kumamoto Prefecture. Our donation enabled one hundred trees including *Quercus serrata*, *Quercus gilva* Blume and *Myrica rubra* to be planted on waste land*2, in a way that complemented the existing vegetation.



Waste land



Planted trees

Observing environmental activities

We accept factory tours to observe our environmental efforts and facilities. A deeper understanding and better communication are achieved by seeing our facilities firsthand and engaging in question and answer sessions. In fiscal 2010, we hosted 11 factory tours, with a total of 581 participants.



Visiting the recycling center

Environmental meeting

We host environmental meetings with local residents as a venue for communication. At these meetings, we explain our daily environmental activities as well as hear opinions and comments from participants on how we can improve things. In fiscal 2010, we hosted ten such meetings, with a total of 38 participants.



Environmental meeting (Nansei Ceramic Co., Ltd.)

Local clean-up activities



This Group regularly holds clean-up activities to preserve the local environment. We also continue to participate in beautifying activities hosted by local municipalities, etc. Fiscal 2010 saw a total of 1,026 people participating.



Clean-up activity (Komaki Factory)



Clean-up activity (Kamioka Ceramic Co., Ltd.)

Web.....
Site-specific environmental reports (Japanese Only)

***1**
Site-specific environmental reports
By-company/factory reports on environmental preservation activities. Issued by four factories of NGK Spark Plug Co., Ltd. and eight affiliates (excluding Nittoku Alfa Service Co., Ltd. and Nittoku Unyu Co., Ltd.)

Web.....
Participation in clean-up activities by each business site

***2**
Waste land
Unused land where trees have been cut down, but no trees replanted.