

Web
Volume of waste generated at each business site

Definition of Effective Utilization
As defined by this Company, identifying value as a resource, reusing or recycling (including heat recovery) generated waste. Also includes selling the resulting valuable resources.

Definition of Zero Emissions
As defined by this Company, when the effective utilization rate of industrial waste and general waste from business activities is 98% or higher.

Effective utilization rate =
reuse + recycle
 $\left(\frac{\text{reuse} + \text{recycle} + \text{landfill and incineration}}{\text{total}} \right) \geq 98\%$

Basic Philosophy

The NGK Spark Plug Group aims to use resources to the maximum, and therefore works first and foremost to reduce the volume of waste generated, and to recycle what is generated.

Results of the Fiscal 2010 Targets and Eco Vision 2010

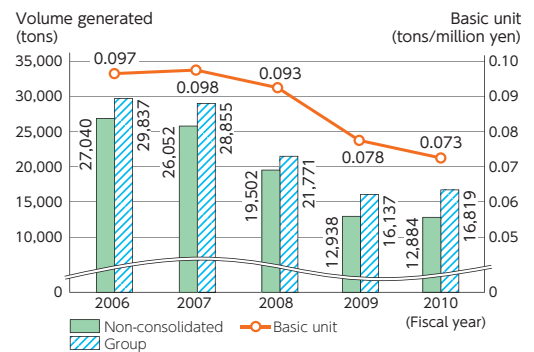
In fiscal 2010, the Group aimed to reduce waste by 794 tons. However, the yield rate of the organic packaging process, which was expected to contribute significantly to that reduction, did not improve as planned, resulting in a total reduction of 678 tons and we did not achieve our target.

With Eco Vision 2010, we aimed to reduce the volume of waste generated, and to reduce recycling residues so as to reduce the environmental burden from waste. The total volume of waste generated in fiscal 2010 was 16,819 tons, a 2% reduction compared to fiscal 2003. The effective utilization rate was 99.2% and we have maintained zero emissions since fiscal 2005. In addition, we reviewed our waste disposers and disposal methods to reduce recycling residues.

Fiscal 2010 Targets and Results

	Target (volume of reduction)	Result
Group	794 tons	678 tons

Transition of volume of waste generated



Fiscal 2015 Target and Fiscal 2011 Target

The Eco Vision 2015 set an basic unit target that would result in a decrease in the volume of waste generated (including valuable resources).

For fiscal 2015, the target basic unit is 0.068 tons/million yen (30% reduction compared to fiscal 2007). Also, the target for fiscal 2011 is 0.072 tons/million yen (26% reduction compared to fiscal 2007); to achieve this, we will work to reduce the volume of waste by reducing the amount of chemicals used as well as extending the product life.

Voice

I am in charge of waste management at the Komaki Factory Recycling Center. We specify the methods of waste separation and disposal sites for the waste generated by each department, and ensure that separation and disposal are carried out correctly. When we hand over the waste to the collectors, we issue manifests and ask them to make sure that they dispose of the waste properly. We also make visits to the waste management companies to check on their disposal facilities, etc.

Yoshinori Nakamura
Group Leader
Environment & Safety
Management Department

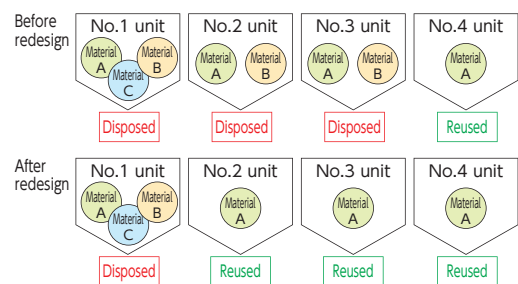


PICK UP

Reusing collected scrap by redesigning the dust collector - Komaki Factory

During the process of pressing and scraping alumina material, scrapings of the material are collected in the dust collectors. To reuse the collected scrapings as raw material, it is essential that no other materials are mixed in. To ensure this, we were only reusing the scrapings collected by No. 4 unit.

Now, we have redesigned the ducts and concentrated collection of material B for No. 1 unit so that No. 2 and No. 3 units now collect only material A. This has made it possible to also reuse the scrapings collected by No. 2 and No. 3 units, resulting in a reduction of 87 tons (64%) of waste per year.



Water Resource

Basic Philosophy

The NGK Spark Plug Group recognizes that water is an important resource, and is making efforts to reduce the volume of tap water and well water used in our business activities.

Results of the Fiscal 2010 Targets and Eco Vision 2010

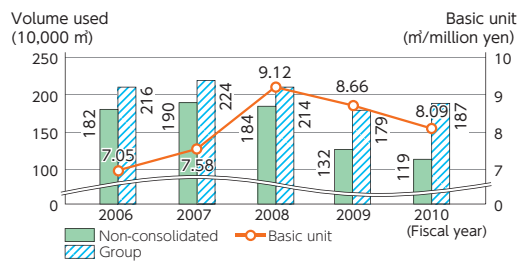
The Group aimed to reduce our water consumption by 9,755 m³ for fiscal 2010. Our efforts proved extremely successful with a reduction of 46,075 m³, far surpassing the target.

Eco Vision 2010 aimed to utilize water resource effectively by reducing the total amount of tap water and well water used in our business activities. The volume of water used in fiscal 2010 was 1,870,000 m³, a 3% reduction over fiscal 2003.

Fiscal 2010 Targets and Results

	Target (volume of reduction)	Result
Group	9,755m ³	46,075m ³

Trends in volume of tap water/well water used



Fiscal 2015 Target and Fiscal 2011 Target

Eco Vision 2015 sets basic unit targets to reduce the amount of water used.

For fiscal 2015, the target basic unit is 6.98 m³/million yen (8% reduction over fiscal 2007). For fiscal 2011, we will aim for 7.77 m³/million yen (2.5% increase over fiscal 2007) by improving the efficiency of the plating process, rethinking the cooling devices, etc. to reduce the water usage.

Voice

We supply well water and tap water to Komaki Factory. Well water is pumped from an underground water source and sent to the factory after removing iron, manganese, and other minerals. Tap water is stored in a tank first before being sent to the factory; this is also used as drinking water, and therefore we take special care with water quality management. We maintain the facilities to ensure that there is a steady and undisturbed supply of both well water and tap water.



Katsuji Sakai
Production Support Engineering
Department

PICK UP |

Conserving water by installing bypass piping - NTK Ceramic Co., Ltd.

Iijima Factory circulates cooling water. Water is pumped separately into the first floor system and the second floor system, but since the water volume was not enough at the far ends of the first floor system, it was supplemented with well water. However, since this is a circulating system, the well water added made the cooling water tank overflow, losing water. On the other hand, the water volume on the second floor system was more than sufficient. To solve this problem, we installed bypass piping connecting the first and the second floor systems, giving sufficient water volume over the entire first floor system. It is no longer necessary to add well water, resulting in a reduction of 24,000 m³ in well water usage per year.

