

Green Factory

Waste Reduction and Recycling Measures

To contribute to establishing a recycling-based society, Kyocera started its activities for industrial waste reduction with a basic policy in FY1992. Since then, Kyocera has been working to reduce waste, including general waste, by focusing on minimizing the generation and discharge of all waste.

Basic Policy for Waste Reduction

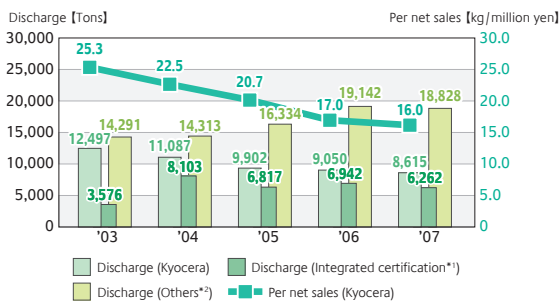
1. Minimize waste generated by business activities
2. Recycle waste once it is generated
3. Change non-recyclable waste into harmless materials

FY2008 Results

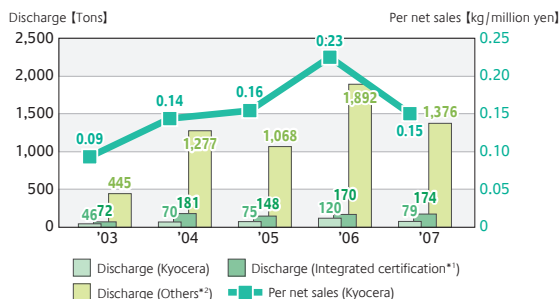
Reduce Industrial Waste Discharge

The plant activities comprising the majority of Kyocera's discharge resulted in a reduction of 28.9% per net sales (16.0) against the target of 18% reduction per net sales (22.5) from the FY2005 level. This was achieved by changing sludge and waste plastics to valuable materials and introducing internal treatment equipment for liquid wastes. Office activities resulted in an increase of 3.1% per net sales (0.15) against the target of 18% reduction per net sales (0.14) from the FY2005 level due to changes in layouts that resulted in the disposal of fixtures and furniture.

Industrial Waste Discharge (Plants)



Industrial Waste Discharge (Offices)



Notes *1 Integrated certification: Sites certified under the Kyocera Group Integrated Environment & Safety Management System except KYOCERA Corporation (Ref. to Page 83)
*2 Others: Except KYOCERA Corporation and integrated certified sites

Examples of Industrial Waste Reduction Measures

<Recycling waste alumina (Shiga Gamo Plant)>

Kyocera sorts waste alumina and uses it as a valuable material. We further refine waste alumina in sorting and have become successful in recycling it as a raw material for refractory bricks. This resulted in an annual reduction of about 80 tons of this waste.



Waste alumina



Refractory brick

<Recycling dust collector waste (Kagoshima Kokubu Plant)>

Waste alumina produced during cutting is collected by the dust collector. The sorting accuracy for waste dust was improved such that it can be recycled as valuable material. This resulted in an annual reduction of about 156 tons of this waste.

<Changing liquid waste to a valuable combustion improvement material (Hokkaido Kitami Plant)>

Waste oil mixed with abrasive compound during the polishing process in single-crystal production had previously been treated as waste material. Now the recycling of waste oil as a combustion improvement material for the incineration facility has resulted in an annual reduction of about 23 tons of this waste.

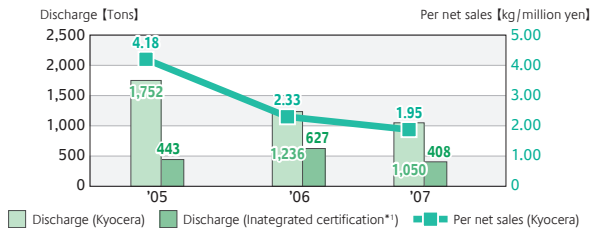
<Recycling waste plastics (Kagoshima Hayato Plant)>

Waste plastics were previously sent as industrial waste to vendors. Now waste plastic has become a valuable resource due to 'divided separation' which has made it possible to implement material recycling of some waste plastics. This allows us to reduce about 36 tons of waste annually.

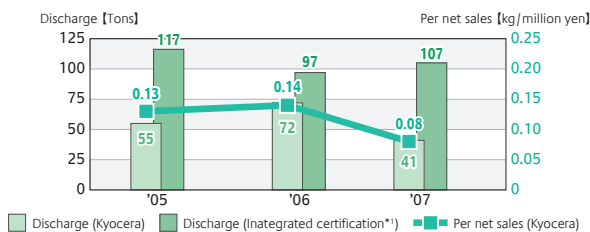
Reducing General Waste Discharge

General waste discharge at Kyocera's plants was reduced by 53.4% per net sales (1.95) against the target of 18% reduction per net sales (4.18) from the FY2006 first half level. This was achieved by measures that include recycling wooden pallets into woodchips and measures taken to reduce sludge in sewage treatment tanks. Office activities resulted in a reduction of 42.2% per net sales (0.08) against the office target of 18% reduction per net sales (0.13) from the FY2006 first half level.

General Waste Discharge (Plant)



General Waste Discharge (Office)

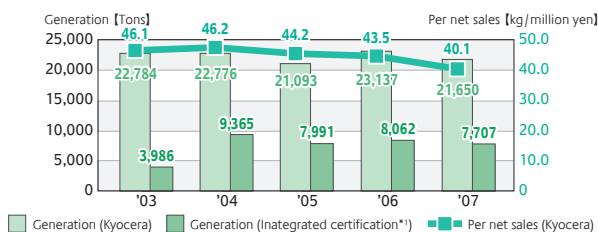


Reducing Waste Generation

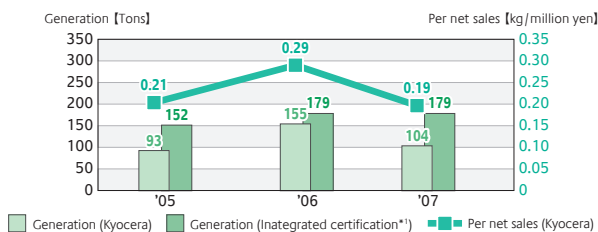
Kyocera not only undertakes activities to reduce the discharge of industrial waste, general waste and valuables, but also promotes activities that reduce their generation.

Plant, activities, which are responsible for the majority of Kyocera's industrial and valuable waste resources, have been refined to include reduction efforts, resulting in a cut of 13.1% per net sales (40.1) against the target of 10% reduction per net sales (46.2) from the FY2005 level. Office reduction activities resulted in a cut of 9.6% per net sales (0.19) against the target of 10% reduction per net sales (0.21) from the FY2006 level.

Industrial Waste Generation (Plant)



Industrial Waste Generation (Office)



Promoting Zero Emissions

Kyocera had defined zero emissions as "an amount of waste at the final landfill sites (including residue discharged from intermediate waste processing companies) that is no more than 1% of the total waste amount, excluding waste that must be disposed of by local governments through a specified method." But, to further promote resource recycling, we reviewed the definition and changed the percentage of the amount of waste at the final landfill sites to no more than 0.5% of the total waste amount. We have achieved zero emissions in all group companies certified by the Kyocera Group Integrated Environmental & Safety Management System. We intend to continuously expand these activities.

Proper Waste Disposal

To further enhance proper waste disposal beyond the waste disposal regulations established in 1994, Kyocera has established a work treatment management standard for waste and also conducts thorough investigations on waste-disposal companies, including financial stability and on-site surveys.

Kyocera conducts field surveys of its disposal companies twice a year to ensure that waste is being treated appropriately. In FY2008, we conducted field surveys and exchanged information with 157 companies.



Introduction of an Electronic Manifest

In February 2008, we started to apply an electronic manifest to more strictly observe regulations and streamline paperwork, including prevention of erroneous omission and confirmation of processing conditions in the Kagoshima region. We will gradually introduce this manifest in each plant and office in the Kyocera Group.

Example of Reducing General Waste

<Reduction of used wooden pallets by changing the material (Hirakata Plant, KYOCERA MITA JAPAN Corp.)>

We changed from wooden to metallic pallets when importing product from member units in China. This allows us to reduce the discharge of general waste by about 53 tons per year.



Wooden pallets



Metallic pallets

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Site information Please refer to environmental impact data for individual sites on our web page (<http://global.kyocera.com/ecology/>).