Environmentally friendly recycling

Recycling of industrial waste

Terminology

Industrial waste
Certain types of waste derived in industrial activities, stipulated in the Waste Management Law. The list contains 20 items, including cinders, metal scrap, and waste oil.

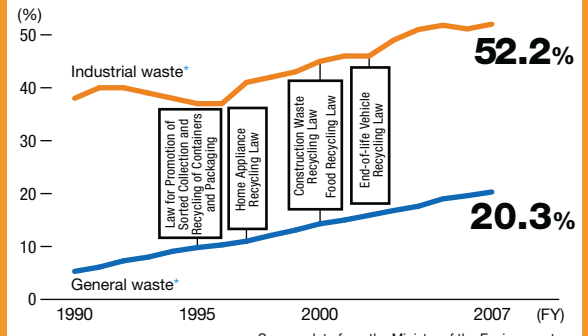
General waste
Waste other than industrial waste, including residential refuse and non-industrial waste derived at corporate enterprises.

Japan's waste problem

Current status of the waste problem in Japan

Our society generates enormous amounts of waste owing to the pursuit of material affluence and resulting continuation of massive production and consumption. Recycling programs are expanding the cyclic utilization of resources, but are not yet fully sufficient.

Trend of the recycling rate and enactment of recycling legislation



Source: data from the Ministry of the Environment

Building the recycling-oriented society

To make judicious use of our finite resources and build a recycling-oriented society, enterprises generating waste must carry out proper recycling and disposal of waste. Furthermore, the society as a whole must practice the 'three Rs' of reduce, reuse, and recycle.

Nearly 100% recycling of industrial waste

We have mounted a companywide effort to recycle industrial waste and had virtually attained our targeted recycling rate of 100%. Our next goal is to increase the rate for industrial waste recycling to 100% at all companies in the TEPCO Group by FY2010.

Breakdown of major industrial waste (TEPCO, FY2009) Unit: kt/year

Type of waste	Amount produced *1	Use after recycling
Coal ash	475.2	Raw material for cement, land reclamation, etc.
Scrapped concrete utility poles	109.7	Roadbed material, etc.
Desulfurized gypsum	90.7	Gypsum boards, cement raw material, etc.
Metal scraps	57.9	Metal materials, recycled cables, etc.
Waste oil	8.2	Fuel substitute, heat recovery, etc.
Shells	7.5	Fertilizer, raw material for cement, soil amendment, etc.
Sludge from wastewater treatment *2	5.0	Raw material for cement, steel, etc.
Insulator scraps	3.3	Blocks, roadbed material, etc.
Heavy / crude oil ash	2.6	Metal recovery, raw material for cement
Waste plastics	1.3	Plastic recycling, heat recovery, etc.
Concrete fragments	1.1	Roadbed material, etc.
Thermal insulation scraps	0.4	Recycled thermal insulation, roadbed material, etc.
Other	11.0	—
Total	774.0	Recycling volume 773.0 Waste sent to landfill 1.0 (Recycling rate *3 99.9%)

*1 Amount of waste produced = Salvaged materials + materials reused in-house + industrial waste
Radioactive waste is not included in industrial waste, as it is separately governed by nuclear power laws and regulations.
*2 Weight after dehydration.
*3 Figures have been rounded to the nearest tenth.

TEPCO is working to recycle various types of waste and make judicious use of resources.

Recycling examples

Scrapped concrete utility poles

Dismantled concrete utility poles are sorted, nondefective poles to be reused.

Defective poles are crushed, separated into steel and concrete.

Concrete is used for roadbed material, iron reinforcement is recycled as raw material for steel.

Shells

Power stations use seawater for cooling, and shells such as blue mussels adhere to water intakes.

These shells undergo intermediate processing such as composting and incineration.

The output is used for fertilizer, raw material for cement, and other purposes.

Insulators*

Attached to utility poles, insulators are made of ceramics that do not conduct electricity.

After removal, the ceramic parts are separated from the metal ones and ground into fine powder.

The ceramic powder is used as material for pottery and roadbeds, and the metal parts, as material to make steel.

Terminology

Insulators

Ceramic devices attached to transmission towers and utility poles, insulating the electricity from the cable etc.