

Waste Reduction and Recycling

TEL is working to reduce waste generated by its business and to lessen environmental impacts.

Stance on Reduction and Recycling of Wastes

TEL's stance on waste reduction and recycling is: "Produce no waste. Recycle any waste that is produced. Properly dispose of any waste that cannot be recycled."

Based on this stance, TEL is working to reduce the waste generated by our business. Every year, the shortage of final disposal sites becomes more critical and landfill costs are on the rise. In addition, reducing waste is crucial in minimizing environmental impacts, as well as in cutting production costs.

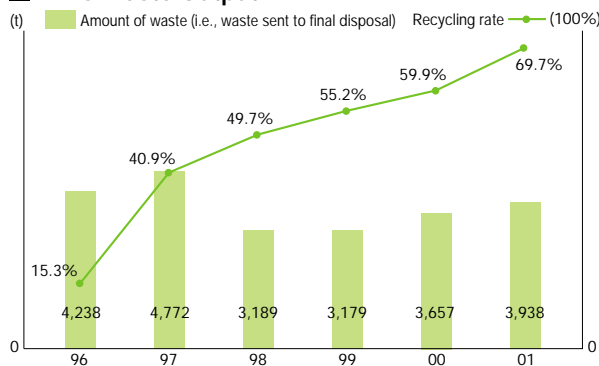
Each TEL plant is making continuous efforts aiming for zero emissions. These plants are sorting and recovering wastes and actively seeking out recycling outlets as part of the effort to promote recycling. It is incumbent on manufacturers not simply to make good products, but also to make every manufacturing process environmentally friendly. TEL promotes proper disposal as outlined in the Wastes Disposal and Public Cleaning Law, for example by carefully selecting the contractors it engages to process its wastes.

Total Waste

The following diagram shows the amount of TEL waste undergoing final disposal and the rate of recycling. The recycling rate has risen year by year, and efforts to use resources effectively have resulted in the rate rising above that of fiscal 2000. The total amount of waste produced rose slightly, with liquid wastes accounting for most of the increase.

Since fiscal 1999, TEL has included wastes from our office facilities with those from manufacturing plants in the waste total. The amount of waste produced rises and falls according to production levels and factory operating status, but TEL is committed to working toward consistent reduction of waste levels.

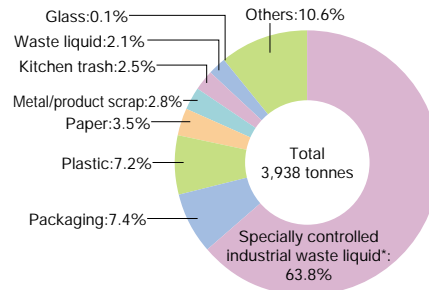
TEL's Waste Output



Breakdown of Waste Volume

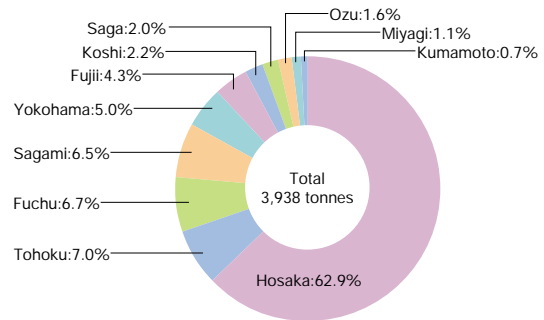
Waste liquids account for about 70% of all TEL's wastes. This is due to the fact that we use a variety of chemical liquids during the development and evaluation of the products we manufacture. Other wastes for TEL as a whole total just over 1,000 tons, a notably small amount of waste for a business of this size.

Breakdown of TEL's Waste for Fiscal 2001



*Specially controlled industrial waste liquid: Liquid waste deemed to pose a risk of harm to human health or living environment and designated by the government as subject to special control.

Breakdown of Wastes by Region for Fiscal 2001



TOPICS

Example of Efforts to Reduce Waste Saga Plant

Each TEL site has established a special subcommittee for waste reduction and carries out its efforts through this body. Notably, the Saga Plant has reduced the amount of waste undergoing final disposal by more than 90% since fiscal 1996. This factory's system has made it possible to take concrete measures, such as thorough waste sorting and the recycling and salvage sale of previously discarded metals and plastics. The Saga Plant particularly focused on recycling solid wastes in fiscal 2001.

Recycling

Promoting efficient recycling requires thorough separation when waste is initially discarded. TEL site separate waste into between 24 and 29 categories, according to waste characteristics. The types of materials sorted are primarily paper, drink containers, scrap wood, glass, plastics and metals. Through sustained efforts, our recycling rate has risen year by year. In fiscal 2001 this rate reached 69.7%, up about 10% from the previous year. This achievement was made possible by changes in the method of disposal of waste liquid at various locations and by thorough separation of wastes, among other efforts. TEL plans to continue to work at each workplace to make recycling even more effective.

Control of Waste Processing Yards and Contractors

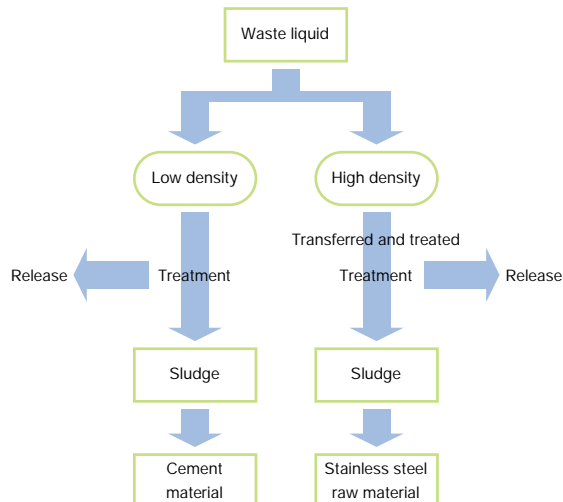
Each TEL site certifies and controls the intermediate processors and final disposal contractors for waste. When a new contractor is to be used to process waste, each site performs a study to certify the contractor, checking their licenses and making onsite checks. This is done to determine whether the contractor is capable of proper processing or disposal, as outlined in the Wastes Disposal and Public Cleaning Law. Once the contractor is certified, it undergoes regular onsite checks to continue monitoring its waste processing status.

TOPICS

Recycling Example 1 Waste Liquid Recycling: Tohoku Plant

At the Tohoku Plant, where waste liquid once made up about 70% of all wastes, employees are controlling the amount of liquids used and thoroughly separating the liquids. A process in which liquids are separated and recovered according to high or low density is making it possible to recycle these wastes, and a contractor is engaged to process the wastes. Low-density waste liquid is treated and the remaining sludge is used as cement material. Recycling of high-density waste liquid began in fiscal 2001. The sludge remaining after processing is recycled as raw material for stainless steel, or as a melting agent. These efforts have pushed the recycling rate at the Tohoku Plant to higher than 90%.

■ Recycling of Waste Liquid, Once 70% of All Waste



Recycling Example 2 Expanded Polystyrene Recycling: Yamanashi Plant

Expanded polystyrene (EPS), the foam used as cushioning when shipping components, is light, but bulky, and is therefore a challenge to ship whether it is discarded or recycled. The Yamanashi Plant addressed this issue by installing an EPS compacter and recycling the material efficiently. The EPS is compacted into ingots and transferred to a contractor, who then recycles the material into hangers, cassette tapes and other products.

TEL recycled about two tonnes of EPS in fiscal 2001.



EPS compacter

Recycling Example 3 Office Initiatives

Office recycling initiatives, pioneered at our World Headquarters in Akasaka and at the Fuchu Technology Center in fiscal 2000, were implemented at other site in fiscal 2001. For example, documents that were once shredded and burned for confidentiality reasons are now recycled. The documents go into a transportation box and are recycled in a system that prevents the viewing of their contents. This effort resulted in the recycling of 770kg of confidential documents at our Osaka Branch Office in fiscal 2001.

For paper cups, we have switched from timber pulp to non-timber kenaf, and our paper-cup recycling program has spread to other site.