Environmental

Measures for Resource Conservation

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How Does the Group Promote a Sound Cycle of Resources?

We are striving to build a sound material-cycle society by methods such as reducing our use of resources as well as reusing and recycling used products to reduce overall generation of waste.

Waste Recycling

The railway business generates various types of waste from the discarded refuse at stations and on trains to industrial waste generated in rolling stock workshops.

In FY 2003, JR East generated 730,000 tons of waste, 88% of which was reused or recycled. Since construction projects, the greatest waste generator among our activities, differ from year to year, it is impossible to make valid comparisons. We have, however, set recycling targets for each category of waste that are to be met by 2005, and are implementing various measures to achieve these targets.

Recycling waste from stations and trains

Approximately 16 million passengers use JR East daily. In FY 2003, these passengers generated 49,000 tons of waste at stations and on trains - equivalent to the annual amount of household waste produced by 120,000 people. Since the waste includes newspapers, magazines, cans and other recyclable resources, it must be properly sorted to enable recycling. We place several refuse bins labeled with each of waste categories and request our passengers to discard waste accordingly. Collected waste is then sent to our recycling centers where it is again sorted for recycling. The target is to achieve a 40% recycling rate by FY 2005 while we have managed to achieve a recycling rate of 39% by fiscal 2003.

Utilizing recycling centers

The greatest amount of waste at stations and on trains is generated within the Tokyo Metropolitan area, and this is where we locate recycling centers. East Japan Eco Access Co., Ltd. operates these recycle centers at the Ueno Station, Omiya, and Shinkiba. In FY 2003, the recycling centers at Ueno station and Omiya collected 3,047 tons of cans and bottles and 662 tons of PET bottles from Tokyo and Saitama Prefectures. The collected waste was then sorted, compressed, and sent to recycling contractors. In FY 2003, the Shinkiba Recycling Center treated 6,630 tons of discarded newspapers and magazines to be sent to paper manufactures for reworking as copy paper. We are using those papers at JR East offices, establishing a material circulation system.







Station refuse bins are transparent for safety and ease of recycling



The Shinkiba Recycling Center sorts and compresses discarded newspapers and magazines to be recycled as copy paper

Recycling used train tickets and commuter passes

Tickets with a magnetic backing can now be recycled thanks to the new technology that enables separation of iron powder from paper fiber. In FY 2003, 99.9% of the 760 tons of used tickets were recycled by paper manufacturers to produce toilet paper, corrugated fiberboard, and business card paper. Some used commuter passes with a magnetic backing were reused as a reducing agent for steel plant blast furnaces until August of 2003, but now they are being reused as solid fuel. We are also promoting the introduction of the "Suica" IC card, which reduces overall waste by replacing tickets and commuter passes. The number of Suica users exceeded 9 million as of June 2004.



Discarded tickets are recycled as business cards, corrugated fiberboard, and toilet paper

Recycling at rolling stock workshops

JR East manufactures commuter and suburban trains at the Niitsu Rolling Stock Manufacturing Factory and repairs and maintains railcars at seven other General Rolling Stock Centers. To reduce the generation of waste and promote recycling, railcar design now takes the entire life cycle of a product into account by striving, for example, to use materials that are easily recycled. At the General Rolling Stock Centers, we sort waste in 20 to 30 categories and recycle them; some of which is sent to collection traders while scrap metal is melted for brake parts and old wheels are processed to manufacture connecting bases for disk brakes.

Reducing construction waste

In FY 2003, 650,000 tons of construction waste – 90,000 tons of which was from contract work*1 – was generated through construction projects at stations and other facilities. The Waste Disposal and Public Cleansing Law requires that subcontractors dispose of the waste they generate. However, being the promoter, JR East is striving to reduce the generation of waste through application of standard civil engineering specifications that ensures the appropriate disposal of construction byproducts, and determines design and construction methods that inhibit waste.

Waste disposal and recycling at construction projects

Recycled (thousand tons) Disposal (thousand tons) Recycling rate (%) (thousand tons) (%) 750 95 652 85 579 500 80 455 481 250 65 0 50 '05 '99 '00 '01 '02 '03 Target



Recycling is also performed at rolling stock workshops where railcars are maintained, repaired, and dismantled

Efforts by retailers and restaurants

East Japan Kiosk Co., Ltd., Nippon Restaurant Enterprises Co., Ltd. (NRE) and other group companies, managing retailers and restaurants at stations, have started the effort to reduce the amount of packaging materials used, such as shopping bags. Boxed lunches are now being sold with minimal packaging such as eco-containers^{*2} introduced by NRE in 2002.

Recycling food waste has also been promoted; Granduo in Tachikawa and Ron-Ron in Kichijoji recycle food waste by installing compost facilities. Using a similar process, NRE recycled 191 tons of food waste in FY 2003 as compost, which was used at its own organic recycling farms as well as at contracted farms. The organic vegetables produced on these farms are then used at restaurants, establishing the closed-loop food recycling system.

Food waste recycling flow



Waste disposal and recycling at rolling stock workshops



*1 Contract work

Construction of non-company facilities consigned to JR East by local governments to ensure safe operations of trains. *2 Eco-containe

A container that can be reused after removing a peel-off film.

Environmental



Efforts at offices

We are shifting to a paperless office environment and striving to recycle waste generated. With thorough sorting, in FY 2003, 1,661 tons out of a total of 2,749 tons of waste was recycled.





Efficient use of water resources

Using 11.7 million tons of water annually, JR East is actively utilizing wastewater^{*1} such as rainwater or hand-wash water to flush toilets. In the head office building, 20,000 tons out of the 42,000 tons of water used in FY 2003 were recycled in this manner.

Proper treatment of medical waste

JR Tokyo General Hospital and JR Sendai Hospital offer medical services to our employees as well as to members of the local community. JR East Health Promotion Center and the railway medical examination centers in each branch office also conduct medical checkups of our employees. In FY 2003, these medical institutions generated a total of 102 tons of medical waste, which was stored and disposed of as specially controlled industrial waste in compliance with applicable laws and regulations.

Green procurement

In compliance with its "Green Procurement Guidelines" of 1999, JR East encourages itself as well as its business partners to select materials with low environmental impact and reuse materials to reduce waste. In FY 2000, polyester fiber from recycled PET (Polyethylene Terephthalate) bottles was used to fabricate staff uniforms, and in FY 2003 this material was also used in new summer uniforms and summer shirts. Now 43% of office supplies are green procurement items and 99% of copy paper used is recycled paper.

From FY 2004 JR East started to grasp the status of environmental and CSR efforts of its business partners.



New summer uniforms use polyester fiber from PET bottles.

"Suica" - A reusable commuter's pass

A Suica (acronym for Super Urban Intelligent Card) is a reusable commuter pass that can be renewed repeatedly by making additional payments. Therefore, it can be said that as the number of Suica users increases, the amount of resources used decline.

Until Suica was introduced in FY 2000, approximately 26.6 million commuter passes with magnetic strips were issued annually. Setting above as a reference value, the total number of commuter passes with magnetic strips issued during the period between November 2001 and March 2003, after Suica was introduced, decreased by about 27.4 million.

This considerably exceeds the 4 million Suica passes issued and proves that this new reusable card has had the intended effect of reducing waste.



*1 Wastewater

This refers to water that is somewhere between potable water and sewage. The recycled water may be used for limited purposes.