

# Fujitsu Group Company Activities (Overseas)

## A global corporation participating in environmental activities around the world

Affiliates around the world, from Europe and North America to Asia and Oceania, are also actively involved in a variety of environmental protection programs. This section describes some of these activities in Vietnam, the Philippines, Germany and the United States.

### Zero-emission Measures at a PCB Plant at FCV\*1

#### Recycling Resources from Sludge

The copper-plating process employed in printed circuit board (PCB) production generates large volumes of sludge containing copper. FCV has succeeded in recycling this sludge by employing a certain dehydrating agent to produce copper concentrates in a process developed in-house. This has turned a waste material into a valuable copper raw material that is exported to Japan and recycled.



Copper-plating waste liquid-processing equipment

#### Recycling of Printed Circuit Board Waste By-products

The defective boards and PCB scraps produced as by-products of the manufacturing process are carefully classified, and the copper content is increased. They are then transported to Japan and recycled as copper raw materials, road paving materials and other products.



Products made from printed circuit board waste

### Environmental Activities in FCPP\*2

To reduce industrial waste and gain profits, FCPP sells the used ethanol (5,688 liters) and IPA (2,902 liters) generated monthly in its manufacturing processes to other companies to save costs. These chemicals can be re-used as printing additives. FCPP also separates packing materials such as cardboard and trays received from external sources and sells these to recycling firms.

### Environmental Activities at FME\*3

FME collects plasma display packing materials from customers, separates them into cardboard, wooden boards and polypropylene shock-absorbent materials, and recycles them. FME has also introduced packaging boxes that can be re-used multiple times and machinery to make shock-absorbent materials from paper.



Separated packing materials

### Environmental Activities of AMDAHL\*4

Over 16 years ago, AMDAHL implemented a system for collecting and recycling items such as office paper, beverage cans and bottles. In fiscal 2000, this program saved AMDAHL an estimated US\$180,650 in trash disposal fees. The system has also been recognized with a number of awards by federal and state government bodies.

#### Outline of System Elements

- Purchase of recycled products (paper towels, packing materials, office stationery, toner cartridges, etc.)
- Measures to promote paper conservation (double-sided copying, use of e-mail)
- Recycling (floppy disks, packaging materials, construction waste materials)
- Collection and re-sale of products from obsolete products/facilities (precious metals, regenerated ICs, iron and non-ferrous metals)



Recycling equipment for packing materials

\*1 FCV: Fujitsu Computer Products of Vietnam

\*2 FCPP: Fujitsu Computer Products Corporation of the Philippines

\*3 FME: Fujitsu Microelectronics Europe

\*4 AMDAHL: AMDAHL (America)