## **ENVIRONMENTAL PROTECTION EFFORTS AT MINEBEA GROUP PLANTS**

"Minebea's manufacturing activities depend on the communities in which its plants are located. Accordingly, we must strive to contribute to these communities and to not be a burden on them." These words were spoken in June 1993 by then-president Goro Ogino at a meeting of the Corporate Environmental Protection Committee. Today, this conviction is shared by all Minebea Group companies and serves as a guideline for environmental protection and other efforts at Group plants.

### Reduction of Energy Consumption/ Contribution to Prevention of Global Warming

#### Green Power Procurement (Minebea Electronics & Hi-Tech Components (Shanghai) Ltd.)

On June 12, 2005, Minebea Electronics & Hi-Tech Components (Shanghai) was recognized by the Shanghai Municipal Government for its participation in the city's first Green Electricity Scheme. A total of 15 companies and municipal organizations were presented with certificates in a ceremony held in Shanghai's Hongji Plaza.

"Green power" refers to power generated from natural energy and includes solar and wind power. The use of green power reduces  $CO_2$  emissions, thereby contributing to the prevention of global warming.

Shanghai's location near the ocean makes it highly suited to wind farms. Minebea began procuring wind power from a municipal wind farm in July 2005.

## Switch to Inverters (Hamamatsu Plant)

The Hamamatsu Plant is installing inverters as part of a bid to reduce energy consumption. In fiscal 2004, the plant installed inverters in lighting equipment, water pumps and large air conditioner motors with inverters, a move that reduced energy consumption by approximately 100,000 kilowatt hours (approximately ¥1.5 million) annually. This is equivalent to 1.6% of the power used by the Hamamatsu Plant in fiscal 2004.



Green Electricity Scheme Certificate, presented by the Shanghai Municipal Government



Zhou Yupeng, vice-mayor of Shanghai, and Susumu Fujisawa, Managing Executive Officer in charge of China Operations, at a signing ceremony for Minebea's agreement to purchase green power from the city of Shanghai



Water pump control panel with inverter installed at the Hamamatsu Plant

## Greening of Plant Sites (Thailand)

The Bang Pa-in, Ayutthaya and Rojana plants received Green Factory Certificates from the Thai government following an assessment carried out on October 28, 2004, in honor of Her Majesty Queen Sirikit's 72th birthday.

Since establishing operations in Thailand, Minebea has taken particular care to ensure a green environment at each of its plants in the kingdom. The three plants awarded Green Factory Certificates in 2004 are particularly notable for providing employees with cool, green rest areas, as well as for their efforts to contribute to the prevention of global warming.

# Management of Chemical Substances Installation of XRF Spectroscopes in Thailand and China

As indicated by the introduction of directives, such as the EU's RoHS and ELV, countries around the world are stepping up efforts to regulate the use of hazardous substances, namely lead, mercury, cadmium, hexavalent chromium, PBB and PBDE, in products. To comply with such directives, Minebea has launched green procurement and strives to ensure the raw materials and parts it purchases from outside suppliers contain no hazardous substances. At its principal plants in Thailand and China, Minebea has installed XRF spectroscopes, enabling it to detect the presence of multiple hazardous substances in such parts and raw materials simultaneously.

## Rehabilitation of Contaminated Soil and Groundwater

#### Cleanup of Contamination from Organic Chlorinated Solvents

The superb cleaning capabilities of tetrachloroethylene, trichloroethylene and other organic chlorinated solvents have long supported their widespread use in cleaning processes for precision components, PCs and electronic components. However, leakage of these solvents from facilities and containers in the form of liquid and vapor has resulted in significant accumulations in soil and groundwater.



Trees at Minebea's Bang Pa-in Plant in Thailand (view of the plant grounds from the main gate)



Testing procedure using XRF spectroscope at the Bang Pa-in Plant in Thailand

Because it previously used organic chlorinated solvents in its manufacturing processes, Minebea has conducted voluntary inspections of its plants in Japan. These inspections confirmed the presence of contamination at the Karuizawa, Fujisawa and Omori plants, as well as at the site of the former Ichinoseki Plant. Minebea promptly informed local authorities and, in line with directives issued thereof, is implementing cleanup measures.