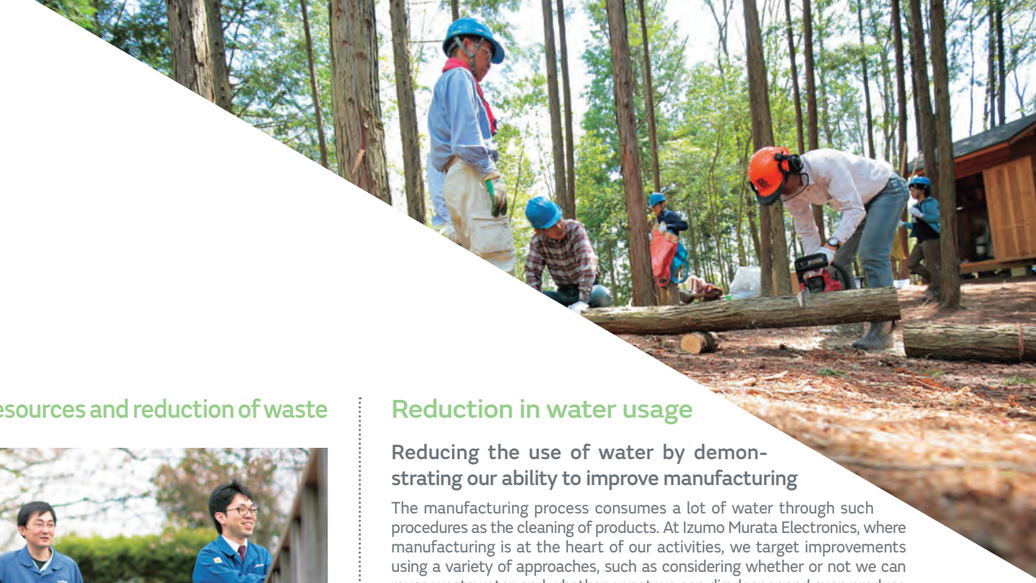
Promoting health, safety, and environmental conservation



Health, safety and reduction in accidents

Photo（from left）
Murata Manufacturing Co., Ltd.
Administration Section, Yasu Administration Department Takanori Fujii
Murata Manufacturing Co., Ltd.
Administration Section, Yokaichi Administration Department Toshi Usuda

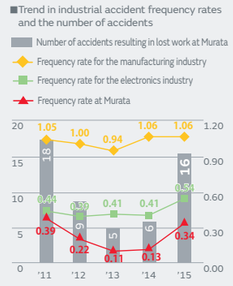
Raising awareness of safety through hands-on education

At Murata's Yasu Plant and Yokaichi Plant, we carry out hands-on safety education for all employees, including temporary staff. Through simulated experiences of the risks that exist in the manufacturing process, such as being "pinched", "trapped" or "shocked" by equipment, as well as those that occur in general office work, like "hurting your lower back when carrying heavy objects", "getting your finger caught in a door" or "getting cut by a utility knife", the aim is to increase everyone's awareness in regard to safety.

Simulated, hands-on experiences enable us to get employees to notice that work-related accidents are not something that only happens to "other people", and that it is impossible to know when it might happen to you. Through such educational experiences in safety, the goal is to improve our employees' safety awareness, something that is difficult with instruction that solely involves studying at a desk.

In order to prevent industrial accidents, Murata combines "tangible" efforts like improvements to the actual facilities together with such "intangible" approaches as education and awareness activities related to health and safety. The frequency rate for industrial accidents at Murata is low in comparison with the average for the manufacturing industry*, but we remain committed to continually lowering it even further.

■Trend in industrial accident frequency rates and the number of accidents



* Number of casualties caused by industrial accidents per one million actual working hours

Prevention of global warming

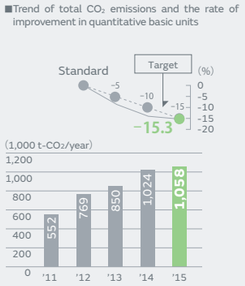
Contributing to the prevention of global warming through the effective utilization of waste heat

Wuxi Murata Electronics is a factory that manufactures monolithic ceramic capacitors. We use a great deal of energy, and the CO_2 emissions here are the highest amongst all Murata plants. The utility facilities that are in operation at this factory, for example refrigerators for air-conditioning and compressors for production, generate heat when they remain in operation over many hours and they need to be cooled with water, which then turns into hot water with a temperature that reaches several tens of degrees. Previously, Wuxi Murata simply discharged that hot water, but by beginning to effectively utilizing the heat that it contains, we were able to reduce the amount of steam that is used in the plant by 10%. And the amount of CO_2 that we were able to reduce through these efforts totaled 1,700 tons a year, equivalent to the annual CO_2 emissions of about 340 average households. We will persist in searching for other waste and expanding the range of our improvements as we continue to promote activities toward preventing global warming.

Photo（from left）
Wuxi Murata Electronics Co., Ltd.
Environmental Maintenance Section, Administration Department
Xue Mingsheng, Wu Wei, Wang Xufeng

At Murata, we are introducing a global warming prevention plan toward reducing the total amount of greenhouse gases emitted from our business activities. Centered on the Global Warming Prevention Special Committee, these measures are being implemented throughout the Murata Group toward achieving the corresponding goals.

■Trend of total CO_2 emissions and the rate of improvement in quantitative basic units



Conservation of resources and reduction of waste

Photo（from left）
Himi Murata Electronics Co., Ltd.
Administration Section Yoshiaki Yamashita
Toyama Murata Electronics Co., Ltd.
Production Engineering Section I, Production Department II Toshihisa Nakamura
Murata Manufacturing Co., Ltd.
Environmental & Safety Management Section,
Environmental & Safety Management Department Kosuke Kawakatsu

Implementing resource-saving activities wherein each activity produces a variety of effects

The PFC liquid used in the manufacturing process* is one factor in global warming, as the majority has conventionally been vaporized after use. At Murata, we have long promoted reducing our use of chemicals that pose a high environmental impact as one initiative toward saving resources, but, starting from FY2014, we established committees across the Murata Group in order to strengthen our efforts toward specifically decreasing PFC emissions. Through trial and error, in FY2015, we introduced devices that can collect and reuse PFC at both Toyama Murata and Himi Murata. As a result, we were able to reduce the amount of PFC emitted by 70%. Because PFC liquid results in about 6,000 times the greenhouse effect of CO_2, that is equivalent to 8,000 tons of CO_2 emissions. It can thus be said that this effort is a multi-faceted activity that not only saves resources but is also contributing to the prevention of global warming.

* PFC（perfluorocarbon）liquid: A liquid chemical whose main constituent elements are carbon and fluorine and which is used in the cleaning of electronic components, etc.

At Murata, "zero emissions"* was attained in the domestic group during FY2003. We are currently tackling zero emissions overseas and the overall reduction of waste generation itself. We are also aiming at strengthening our waste management organization in order to more surely and more stably process that waste.

■Trends for waste output and the comparative unit ratio of production

Reduction in water usage

Reducing the use of water by demonstrating our ability to improve manufacturing

The manufacturing process consumes a lot of water through such procedures as the cleaning of products. At Izumo Murata Electronics, where manufacturing is at the heart of our activities, we target improvements using a variety of approaches, such as considering whether or not we can reuse wastewater, and whether or not we can dig deeper and even produce things without using water. And, due to this, we were able to reduce water usage by about 93,000 tons a year. In addition, through these efforts, we were even able to eliminate the need to expand our water treatment facility, which had reached the limit of its processing capacity.

Japan is often considered to have an abundance of water resources, but the amount of water that can actually be used is quite limited. On top of always ensuring that pollution is prevented so as not to contaminate our precious water resources, we must also pursue more efficient ways of its use. In the future, by taking advantage of our abilities to make improvements in the field of manufacturing, we will continue to promote the reduction of our environmental impact.

Photo（from left）
Okayama Murata Electronics Co., Ltd.
Environment Section, Administration Department Kazuhiro Matsutani
Izumo Murata Electronics Co., Ltd.
Production Engineering Section, Production Department II Sakae Fukuda

Murata promotes reduced and effective use of water resources. Each plant is carrying out its own activities and we are ensuring that that information is shared throughout the Murata Group.

■Trends for water use and the consolidated adjusted comparative unit ratio of production