

Initiatives for Reducing Impacts on the Environment

● Basic Approach

Plant effluents and emissions can be a source of water, air, and soil pollution that poses a threat to local communities. At the Minebea Group, we believe that harmony with local communities is indispensable to our business activities, and as such, we are striving to reduce our impact on the environment.

● Results of FY2014 Initiatives

In order to ensure compliance with the environmental laws and regulations of each country and community, the Minebea Group has established environmental standards surpassing its legal requirements and undertakes daily compliance monitoring. At all of our Group plants, we have enhanced daily monitoring and environmental patrols to ensure there are no leakages, foul odors, noise, vibration or other issues that could inconvenience surrounding communities.

● Plant Initiatives

Plant Wastewater Purification

Prior to releasing wastewater into rivers, Minebea Group plants use their own processing equipment to purify wastewater to within fixed environmental standards. These plants adhere to environmental laws of the countries and localities in which they operate, and independently monitor such wastewater discharges, including regular testing for such metrics as pH¹, COD², BOD³, SS⁴, and the oil content of n-hexane extracts⁵.

1. **pH:** A scale indicating whether substances are acidic or alkaline. pH7 is neutral. pH values below 7 indicate increasing acidity, while values above 7 indicate increasing alkalinity.
2. **COD (chemical oxygen demand):** The amount of oxygen consumed to oxidize organic substances (pollution) in water. COD measurement takes less time than BOD measurement, but is less reliable. COD is generally used as a metric in wastewater management for sea, lake, and marsh waters.
3. **BOD (biological oxygen demand):** The amount of oxygen required for bacteria to consume and decompose organic matter (pollution) in water. Higher values indicate greater degrees of pollution. Measurement takes several days. BOD is generally used to observe effluent water in rivers.
4. **SS (suspended solids):** The volume of substances suspended in water. The higher the number, the greater the degree of water pollution.
5. **n-hexane extracts:** Substances extracted from oils and detergents that are difficult to volatilize in water using a substance called n-hexane as solvent. In this report they signify mineral oils.

Oil Spill at Fujisawa Plant (Japan)

In May 2014, wastewater from the Fujisawa Plant containing oil spilled from a drainage ditch into a nearby river. We immediately informed local authorities and took action to prevent an expansion of the spillage based on their guidance. Specifically, we took steps to contain the spill in the river and used oil fences and absorbent mats to collect oil on the water surface. We confirmed that the spilled oil did not flow into the ocean, and we analyzed the collected oil to confirm that it did not contain substances harmful to people or local ecosystems.

We also confirmed that the cause of the accident was

aged facilities, and we have taken steps to prevent reoccurrence based on guidance from Fujisawa City. Furthermore, we have checked other equipment to ensure that similar types of degradation do not exist.

Moving forward, we will make every effort to prevent similar accidents from happening.

Investigating Landfill Waste Sites (Japan, Thailand, China, etc.)

At each plant and office, there are types of waste which are difficult to reuse or recycle within the site. In these cases, the waste is disposed of through third-party waste disposal companies.

The Minebea Group selects reliable waste disposal companies, and conducts regular inspections of their disposal sites to confirm the status of waste disposal and management. We will continue to cooperate with waste disposal companies to ensure that their waste disposal processes do not generate soil, water, or air pollution.

In August 2014, the chairman and deputy chairman of the Group Environmental Protection Committee visited our sludge and liquid waste disposal contractor in Thailand (GENCO) to inspect the processing site. The visit confirmed that waste was being disposed of properly and there was no pollution released into the area around the site.



August 2014 visit to disposal site of Thai sludge and liquid waste contractor GENCO

● Future Issues and Goals

The Minebea Group continues to conduct business operations in compliance with environmental laws in Japan and around the world, and is proceeding with cleanup work in areas where it has caused environmental contamination in the past.