The Key to Realizing Sustainable Society Lies in the Pursuit of Technology

Environmental Management for Sustainability that leads to a Quality followed by Quantity Philosophy

Masamoto Tazaki
President and CEO

The key concepts of our philosophy are "Technology that returns Materials to Nature" and "Technology that utilizes the Blessings of Nature."

As the global environment has continued deteriorating, people are increasingly doubtful about societies that use a lot of resources and energy. To maintain a pollution-free society, the life style of the past, say, a few centuries ago, may be an ideal choice. However, even though some people feel happy even if they do not have many material goods, some people want to enjoy the abundance of the modern age. I believe it is a duty of a manufacturing corporation to cope with the diversity of people's senses of value with minimum amounts of resources.

First, it is vital not only to make products from resources but also to recover unnecessary resources and return them to nature. Kawasaki is manufacturing return-flow oriented products such as waste treatment and sewage sludge treatment plants. In this context, one important point is how to share recycling costs. This is because in return-flow industries, unlike in forward-flow industries, cost recovery based on the superficial product value is difficult. Everyone must recognize that waste disposal has a cost. I think corporations must pursue production practices that consider the whole lifecycle, ranging from manufacture, construction, and use to decommissioning and final disposal.

Now, obtaining energy is another problem, because energy must be used for recycling, too. Developing a new energy source that can be substituted for rapidly decreasing fossil fuel resources is an urgent task.

One very promising energy source is solar energy. Petroleum and wind power are both fundamentally derived from solar energy. The key to solving our environmental problems appears to be the effective utilization of this practically inexhaustible natural energy supply. Kawasaki has been committed to promoting technological developments in wind power generation, biomass, solar energy systems, etc. In addition to the creation of new technologies, we are also greatly reducing CO_2 emissions from conventional products such as railway rolling stocks and marine vessels by making efforts to reduce their weight and improve their fuel consuming efficiency.

Kawasaki is based in Japan where resources are not abundant. Therefore, Japanese industries should lead the world with technology that is based on the blessings of nature. We, Kawasaki, want to focus our overall technological assets on this goal.

Quality and Environment are an Inseparable Combination.

Environment and business growth sometimes conflict with each other. What can make these factors compatible with each other is technology. Our Medium- and Long-Term Environmental Vision, adopted in the current fiscal year, presents numerical targets that we can attain with technological efforts. As for monetary profit, we have defined our views on this in a guide, Environmental Management for Sustainability.

Stricter environment-related regulations are being imposed increasingly throughout the world. Without a doubt, a corporate culture that strives to comply with existing laws and regulations is very important. Anticipation of the possibility (risk) of being subject to new regulations in the future is also necessary. At Kawasaki, we are adding the factor E (Environment) to the factors Q (Quality), C (Cost) and D (Delivery), which we already consider.

Though this may appear to be a higher hurdle, I believe it is vital to address environmental issues with the attitude that "quality and environment are an inseparable combination" in mind. This stance coincides with the policy I have continued to promote since my promotion to the presidency that "high value-added products and services differentiated by technology and brand power are more important than quantitative expansion" and with my "Quality followed by Quantity Management" principle.

Technical Innovation makes Dreams Come True.

The driver of the vehicle "Earth" has been attempting to evade various obstacles by steering alone while pressing down the accelerator pedal (with mass-production and mass-consumption). However, the driver has just noticed that the brake (the environment) plays a vital role in safe driving. I firmly believe that what we can do to allow people to share the blessings of nature and create an affluent and well-balanced society is to make innovations in energy-related technology. I believe we must maintain our spirit of taking on challenges and the attitude that we will make it possible with Kawasaki technology. I strongly hope that all Kawasaki employees are following the "Think Globally, Act Locally" philosophy, and promoting sustainable safe driving for the vehicle "Earth" while contributing to keeping the planet beautiful into the future.

Introduction of Environmental Efforts by Kawasaki Internal Companies and Affiliates

Rolling Stock, Construction Machinery & Crushing Plant Company

Reducing Lifecycle Energy Use and Promoting Environmental Management for Sustainability

Tadaharu Ohashi
President

Our company is involved in society's infrastructure projects with our products being used in every phase. For example, our construction machinery is used in the construction phase, our rolling stocks are used in the operation phase, and our crushers and pulverizers are used in the recycling phase.
Therefore, to reduce the environmental impact, we must reduce the lifecycle energy use for every piece of infrastructure equipment.
One example is that the lifetime energy consumption of Shinkansen 700 series trains is as low as approximately 2/3 of those of the first generation Shinkansen trains (report from the user). The percentage of our construction machinery subjected to product assessment has reached 75%. Now, as a result, as much as 95% of our construction machinery uses low-emission engines. Furthermore, we are developing equipment that uses refuse plastic (RPF) derived from recovered infrastructure project materials.
Through the products that reduce the lifecycle energy use of infrastructure, we have become further committed to establishing environmental management for sustainability and to creating a sustainable society.

Aerospace Company

In Pursuit of the Realization of Environmental Protection and Environmental Management for Sustainability

Takashi Sugoh
President

The Aerospace Company is in its second year since the acquisition of ISO 14001 certification. We still have many challenges ahead of us. The most critical challenge is the establishment of an environmental protection program that covers local communities. Since our Gifu Works is situated in an urban area and there are sources of drinking water in ground water and downstream from the works, we are extremely careful about maintaining and controlling air and water quality. In this situation, we are continuously making efforts for environmental protection including substitution of harmful substances with safe alternatives.
Next, in the area of product development, we will attempt to implement product assessment in a three-year plan. So far, we have been studying the application of the LCA technique. In this fiscal year, we are going to start fully working group activities and begin trials of the LCA technique.
All of our employees are determined to make further efforts focused on the implementation of environmental protection and environmental management for sustainability.

Gas Turbines & Machinery Company

Contributing to Society with Quality- and Environment-Conscious Products

Takashi Yoshino
President

In recent years, society has increasingly concerned about environmental impact caused by business activities, and legislative regulations such as Global Warming Prevention programs are imposed.
Our company provides wide scope of environmentally conscious products with recognition; e.g. compact gas turbine engines with high power output, co-generation systems of exceedingly high comprehensive energy efficiency, and tunnel ventilation systems. In order to improve our management and operations, we have established the environmental mission statement; "Realizing the environmentally conscious producing process and products". Accordingly, we have been committed to improving production process for reducing disposal, implementing "Zero Emission Activities", and application of product life cycle assessment method.
Our goal is contribution to customers, communities and other stakeholders through establishment of environmental prevention management. To accelerate our managerial activities and contribute to realizing a sustainable society, we will make efforts to implement maximizing resource efficiency and developing quality and environmentally conscious products.

Plant & Infrastructure Engineering Company

Our Technology Responds to the Need for Reduction in Environmental Impacts

Takuya Maeda
President

In every aspect, our company is deeply committed to the protection of the global environment.
Our Environmental Control Plant Division designs and fabricates equipment and systems necessary for environmental protection, such as refuse incinerators, industrial wastes recycling equipment and sewage water treatment equipment. The major products of our Power Plant & Industrial Plant Engineering Division include waste heat recovery boilers, which transform the thermal energy released from production processes of paper making, steel making and cement manufacturing into steam and/or electric power. We also make desulfurization and denitrification equipment, which inhibit emissions of SOx and NOx derived from thermal power stations, and cement manufacturing plants that are optimized for energy saving.
Furthermore, our Steel Structure & Industrial Equipment Division manufactures wind turbine generation plants and facilities associated with LNG, which is one of the cleaner energy sources. We are going to further develop and improve these products as well as promote energy saving with all our products, assisting in protection of the global environment.

Consumer Products & Machinery Company

The Most Important Task is to Develop Products that are Friendly to the Earth

Shinichi Morita
President

Our company provides leisure products including motorcycles and four-wheeled buggies (ATVs). These products improve the lives of their users, but they also have impacts onto the global environment. To alleviate these impacts, we have been mobilizing all our technologies to reduce fuel consumption, make exhaust gas cleaner, and minimize discharge of other substances with environmental impact. We are also continuously working to improve our recycling systems.
For our personal watercrafts we introduced models with 4-stroke engines, which allowed us to improve greatly the cleanness of exhaust gas and suppress noise emissions. For motorcycles, we are developing a clean engine that can meet the 3rd exhaust gas regulation used in Europe (EURO III). Steady implementation of ISO 14001 activities is one of our key efforts toward alleviating the environmental impact of our production activities. Another critical task for the business management of our company is the manufacture of products that are friendly to the global environment, such as those mentioned above.

Kawasaki Shipbuilding Corporation

Further Promoting Environmental Management Activities for Sustainability

Shuichi Tadokoro
President

Proud of having been a key division in the Kawasaki Group, after becoming an independent company last October, we have continued executing our task of shipbuilding for the realization of a sustainable society.
We focus on the construction of LNG ships and LPG ships that transport clean energy. Our Sakaide Works will start constructions of the world's largest LNG ship, and an LPG ship that incorporates an innovative energy-saving hull design.
We will continue to make every effort to proceed with an environmentally conscious shipbuilding process while conserving resources and reducing energy consumption. In FY2001, our Kobe Works acquired ISO 14001 certification. We are now going to proceed steadily with the continued improvement of an Environmental Management System (EMS) in all of our divisions and at all phases of production. At the same time, we will request that our employees continue to be conscious about environmental protection in their homes and local communities, while we promote environmentally conscious management with an increased emphasis on the global environment.