# **Worksites**

### **R&D** Center

### Introduction to the R&D Center

The R&D Center is located next to the Kawasaki Plant in a section of the petrochemical complex in Kawasaki across the Tama River from Haneda Airport.

The center carries out development of materials that support ZEON Group business, primarily synthetic rubber, through to development of processing technologies. R&D activities are pursued in line with a basic philosophy of contributing to society through the ongoing creation of world-leading products that "do not imitate and cannot be imitated" using unique, innovative, and environmentally friendly technologies.



Aerial view of the R&D Center

On the premises of the ZEON Takaoka Plant, in Takaoka City, Toyama Prefecture, we also carry out development of optical film for application to LCD televisions and next-generation displays, materials for organic EL lighting, which contributes to energy conservation, and medical equipment, such as catheters, used in the examination and treatment of blood vessels, the digestive organs, the gallbladder, and other parts of the body.

Through the development of such diverse materials and parts that make life more convenient, as well as the creation and delivery to a wide range of customers of new products that contribute to conservation of energy and the natural environment, the R&D Center wants to ensure that ZEON Corporation remains a company that is "friendly to the environment and needed by society."

The center also engages in activities as a member of the local community. This involves the continuation of zero emissions\* efforts through thorough sorting of waste generated by R&D activities, Ecocap (plastic bottle cap collection) activities, street-cleaning activities conducted together with neighboring corporations, and ongoing internships.

In addition to efforts in Japan, the center plans to aggressively advance R&D activities conducted together with research laboratories and technological support service locations in North America, China and Europe, as well as joint research with overseas universities and corporations. We will continue R&D activity to deliver to customers around the world new products that benefit the global environment and human prosperity.

\*Zero emissions:

The establishment of systems that discharge no emissions into the natural world, and the fundamental idea behind such establishment.

### **CSR Efforts at the R&D Center**

In accordance with the ZEON CSR Policy, all researchers have CSR awareness as they carry out research. In terms of compliance, related laws are strictly observed in all research activities, and the company aims for a highly stimulated and safe research environment that is free from accidents. Before the R&D Center embarks on a new research project, research and administrative departments come together to conduct new experiment safety examinations in which they discuss the research unit's proposal and confirm legal compliance matters and safety considerations, such as chemical substance safety and exposure protection for researchers, as well as ensure proper allocation of resources. ZEON Corporation will proceed with R&D activities under a system that ensures ongoing provision of quality products offering a high degree of safety and that customers can trust.

# **Environmental and Safety Activities**

The R&D Center's action policy in fiscal 2011 was "to improve the efficiency of research activity and ensure thorough implementation of safety operations through selective focus and visualization of all activities." Effective safety activities led to the attainment of seven million hours without accident or incident (zero lost-time accidents). The center also managed to keep landfill disposal at zero throughout the year due to thorough sorting and recycling of waste generated by research activities.

In fiscal 2012, emphasis will be placed on "noticing" dangers with the implementation of comprehensive risk prediction activities. Risks will be lowered by becoming aware of dangers and visualizing work tasks through dialogue, helping to ensure the year goes by without accident or incident. Waste recycling will continue in order to keep landfill disposal at zero.

### **Quality Assurance Initiatives**

The R&D Center aims to create products based on unique, innovative technologies that "do not imitate and cannot be imitated" in conformance with the ZEON R&D Policy. This approach to product creation will allow us to quickly realize customers' visions for the future. In other words, "ZEON creates the future today through the power of chemistry."

### **VOICE ZEON Creates the Future**

As we are required to develop new products that match developments in a rapidly changing world, we will undertake the following.

- Researchers shall gather their own information from around the world in order to develop products that anticipate changing trends.
- 2. We will advance appropriate product creation by preparing quality function deployment (QFD) matrices that visualize establishment of design and production quality for each product development process.



Yoshiyuki Mitsuhira, General Manager – R&D Center

- 3. Eliminating the need for "redoing" will be vital for speeding up product development. We will make efforts to establish mass production technologies for ensuring smooth transition from research to actual production.
  - I believe these initiatives will allow us to develop products that satisfy the customer.

# Living Together with the Local Community

Besides researcher participation in cleanup and planting activities in the vicinity of research laboratories, the R&D Center participates together with the Kawasaki Plant and neighboring companies in joint cleaning and maintenance of sidewalks along the Tonomachi Yakosen street. In fiscal 2012, we will continue to strengthen interaction with universities, for example by accepting more interns and dispatching temporary instructors.



ZEON researchers and fiscal 2011 interns



Social function together with fiscal