

# Management's Discussion and Analysis

## Consolidated Results of Operations

### Business Overview

The Japanese economy during the fiscal year ended May 31, 2011 began to emerge from its period of stagnation, supported by exports to China and other emerging nations. However the future remains uncertain as a result of factors including a reduction in corporate production activities due to the effects of the Great East Japan Earthquake, and concerns over the high value of the yen.

In industries such as semiconductors and electrical and electronic devices, steady growth—particularly in China and other emerging nations—aided our company's growth and improved the business results for the Group.

In the pharmaceuticals industry, with the downward revision of drug prices in April 2010, trends toward restricting drug prices are growing in strength, and the global competition for research, development, and sales of new drugs is becoming increasingly fierce. In many ways, the struggle for survival between companies is becoming increasingly intense.

Domestic sales in the automobile industry were largely affected by the end of the eco-car subsidy and the disruption of the supply chain caused by the Great East Japan Earthquake. In contrast, the market for overseas sales is growing due to growth in China and other emerging nations, as well as other factors.

Under these conditions, the Nippon Kayaku Group launched Phase I (three years) of its mid-term business plan, working for the optimal allocation of business resources to key business areas, strengthening our overseas operations, reinforcing the profit structure, further reducing costs, refining

our product lineup, and optimizing our production sites.

The Great East Japan Earthquake did not result in injuries to personnel, serious damage to production equipment, or similar problems in the Nippon Kayaku Group. The effect on the business results during this fiscal year was limited.

### Net Sales

Due to growth in the functional chemicals business and strong performance by the pharmaceuticals business and safety systems business, consolidated sales for the fiscal year ended May 31, 2011 were 148.879 billion yen, an increase of 7.846 billion yen (5.6%) from the previous fiscal year.

Consolidated net sales for the fiscal year ended May 31, 2011 were 1.41 times that of the company on its own.

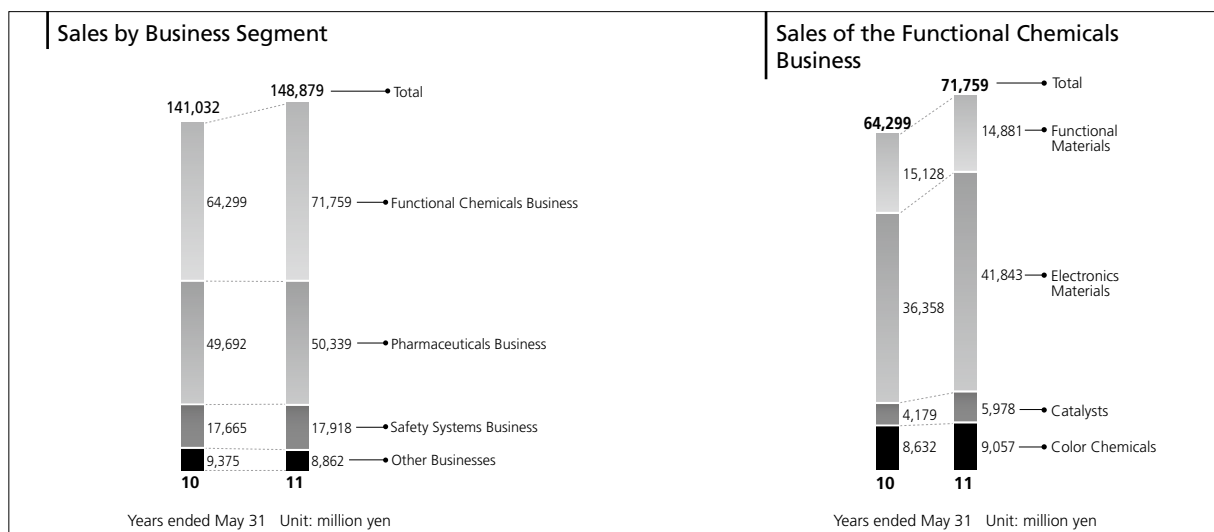
### Gross Profit

Gross profit for the fiscal year ended May 31, 2011 was 60.709 billion yen, an increase of 4.653 billion yen (8.3%) from the previous fiscal year. In addition to large growth in sales in the functional chemicals business, cost reductions also contributed to the growth in gross profit.

### Selling, General and Administrative Expenses; Operating Income

Selling, general and administrative expenses for the fiscal year ended May 31, 2011 were 39.880 billion yen, a decrease of 180 million yen from the previous fiscal year.

As a result, operating income was 20.829 billion yen, an increase of 4.834 billion yen (30.2%) from the previous fiscal year. The operating income to net sales ratio was 14.0%, an improvement of 2.7% from the previous fiscal year.



### Other Income (Expenses) and Income before Income Taxes and Minority Interest

The net value of other income (expenses) for the fiscal year ended May 31, 2011 was 478 million yen. This was the result of factors including a gain on reversal of foreign currency translation adjustments resulting from the liquidation of a U.S. subsidiary, and a decrease in loss on valuation of investment securities.

As a result, income before income taxes and minority interest for the fiscal year ended May 31, 2011 increased from the previous fiscal year by 10.208 billion yen (92.0%) to reach 21.308 billion yen.

### Income Taxes (Including Income Taxes Deferred), Minority Interest, and Net Income

Income taxes for the fiscal year ended May 31, 2011 increased by 6.563 billion yen (804.2%) to reach 7.379 billion yen. The effective tax rate reflected in the consolidated statements of income for the fiscal year ended May 31, 2011 increased to 34.63% from 7.35% in the previous year.

Minority interest increased by 511 million yen (124.1%) from the previous fiscal year to reach 924 million yen.

As a result, consolidated net income for the fiscal year ended May 31, 2011 increased by 3.133 billion yen (31.7%) from the previous fiscal year to reach 13.004 billion yen.

Consolidated net income for the fiscal year ended May 31, 2011 was 1.39 times that of the company on its own.

### Operating Performance by Business Segment

Operating performance by business segment in the fiscal year ended May 31, 2011 is described below.

[Functional Chemicals Business]

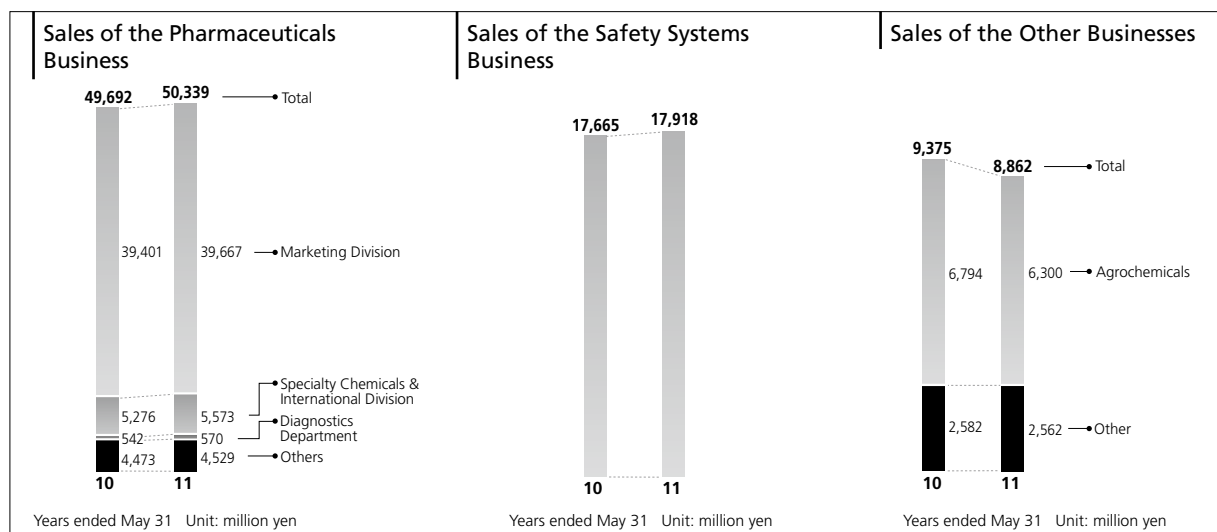
In the fiscal year ended May 31, 2011, sales of the functional chemicals business were 71.759 billion yen (up 11.6% from the previous fiscal year), and segment profit was 12.116 billion yen (up 45.1% from the previous fiscal year).

In the functional materials business, although sales of epoxy resins for semiconductor encapsulation were affected by customer production adjustments, results overall were on approximately the same level as the previous fiscal year. Sales of UV-curing resins were down from the level of the previous fiscal year, and sales of the functional materials business as a whole were also down.

In the electronic materials business, sales of colors for inkjet printers were higher than the previous fiscal year. At Polatechno, sales of polarizing films for LCD displays were strong and exceeded the level from the previous fiscal year. Sales of the electronic materials business as a whole also exceeded the level from the previous fiscal year.

In the catalysts business, there was a recovery in demand for catalysts used in the production of acrylic acid, and sales were higher than the previous fiscal year.

In the color chemicals business, sales exceeded the level from the previous fiscal year due to strong sales of textile dyes.



# Management's Discussion and Analysis (continued)

## [Pharmaceuticals Business]

In the fiscal year ended May 31, 2011, sales of the pharmaceuticals business were 50.339 billion yen (up 1.3% from the previous fiscal year) and segment profit was 10.544 billion yen (up 4.5% from the previous fiscal year).

In the area of anti-cancer drugs for the Japanese domestic market, sales of "BICALUTAMIDE Tab. NK," "PACLITAXEL Inj. NK," and "CARBOPLATIN Intravenous Inj. NK" were strong and exceeded the levels of the previous fiscal year. On the other hand, the effects of competitor products and other factors resulted in lower sales of "arterial-injection IA CALL" and "RANDA Inj.," compared with the previous fiscal year. Sales of pharmaceutical products for the Japanese domestic market as a whole were higher than the previous fiscal year.

In the area of exports, sales of "BLEO" (anti-cancer drug) were lower than the previous fiscal year, and exports as a whole were lower.

In the area of active pharmaceutical ingredients for the Japanese domestic market, sales of raw materials for drugs were strong, and sales of active pharmaceutical ingredients for the Japanese domestic market as a whole also exceeded the level of the previous fiscal year.

## [Safety Systems Business]

In the fiscal year ended May 31, 2011, sales of the safety systems business were 17.918 billion yen (up 1.4% from the previous fiscal year) and segment profit was 1.063 billion yen (up 174.7% from the previous fiscal year).

Due to the effects of the Great East Japan Earthquake, there was a sharp decline in domestic sales and exports from Japan during the fourth quarter. However as a result of

increased sales of airbag inflators in China, sales in the fiscal year ended May 31, 2011 were higher than in the previous fiscal year. Sales of micro gas generators for seatbelt pretensioners were down from the previous fiscal year.

## [Others]

In the fiscal year ended May 31, 2011, sales of other businesses were 8.862 billion yen (down 5.5% from the previous fiscal year) and segment profit was 2.273 billion yen (down 0.6% from the previous fiscal year).

In the agrochemicals business, both domestic sales and exports were down from the previous fiscal year.

Sales of real estate and other businesses were also down from the previous fiscal year.

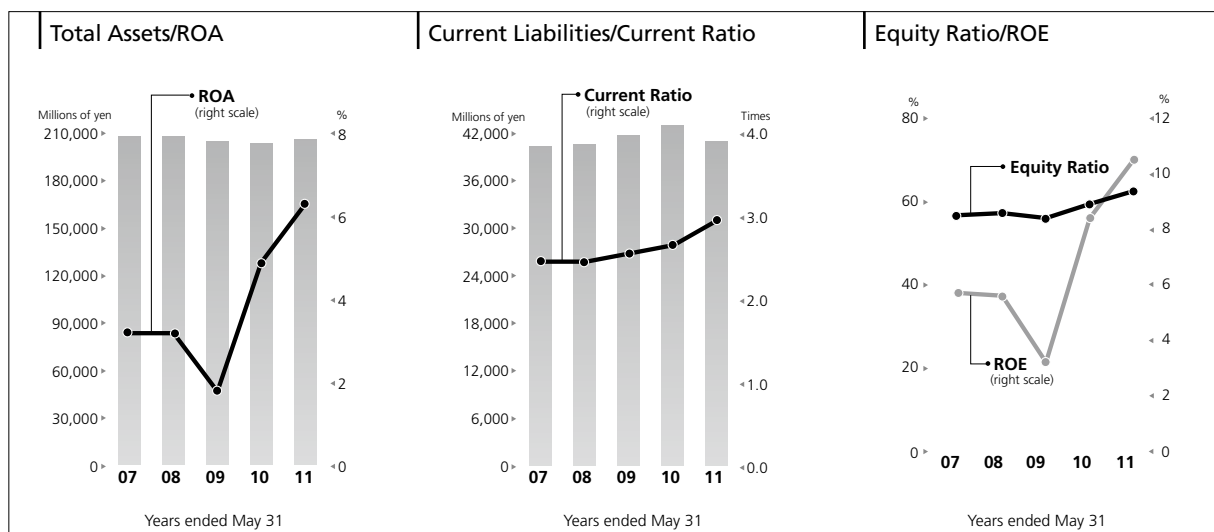
## Consolidated Financial Position

### Total Assets, Liabilities, and Net Assets

As of the end of the fiscal year ended May 31, 2011, total assets increased by 2.468 billion yen from the previous fiscal year to reach 205.110 billion yen. The primary increases were 5.491 billion yen in cash and cash equivalents and 4.097 billion yen in other current assets. The primary decreases were 3.386 billion yen in deferred tax assets and 1.084 billion yen in property, plant and equipment.

Liabilities decreased by 5.499 billion yen from the previous fiscal year to become 69.313 billion yen. The primary decreases were 965 million yen in short-term bank loans, 1,170 million yen in provision for retirement benefits, and 1.211 billion yen in other non-current liabilities.

Net assets increased by 7.967 billion yen from the previous fiscal year to reach 135.796 billion yen. The primary



increases were 13.004 billion yen in net income and 656 million yen in minority interests. The primary decreases were 3.628 billion yen for payment of dividends, 1.653 billion yen for translation adjustments, and 328 million yen for net unrealized holding gains on other securities.

## Consolidated Cash Flows

In the fiscal year ended May 31, 2011, net cash provided by operating activities amounted to 18.969 billion yen. (Net cash provided during the previous fiscal year was 20.284 billion yen.) Despite corporate tax payments of 4.214 billion yen, an increase in advance payments for raw materials of 5.153 billion yen, and a gain of 2.145 billion yen on reversal of foreign currency translation adjustments resulting from the completed liquidation of a US subsidiary, this positive cash flow was the result of income before income taxes and minority interests of 21.308 billion yen and depreciation and amortization of 9.029 billion yen.

In the fiscal year ended May 31, 2011, net cash expended in investing activities totaled 7.132 billion yen. (Net cash expended during the previous fiscal year was 5.817 billion yen.) Despite income of 800 million yen resulting from sales of investment securities of subsidiaries and affiliates, this result was primarily due to payments of 8.110 billion yen for the purchase of property, plant and equipment.

In the fiscal year ended May 31, 2011, net cash expended in financing activities was 5.992 billion yen. (Net cash expended during the previous fiscal year was 13.590 billion yen.) Despite income of 5.0 billion yen from long-term bank loans, this was primarily due to payments of 5.794 billion yen for repayment of long-term bank loans, a 3.615 billion

yen payment of cash dividends, and a 985 million yen repayment of the construction cooperation fund.

As a result of the above, the balance of cash and cash equivalents at the end of the fiscal year ended May 31, 2011 was 41.304 billion yen, an increase of 5.491 billion yen from the end of the previous fiscal year.

## Business Risk

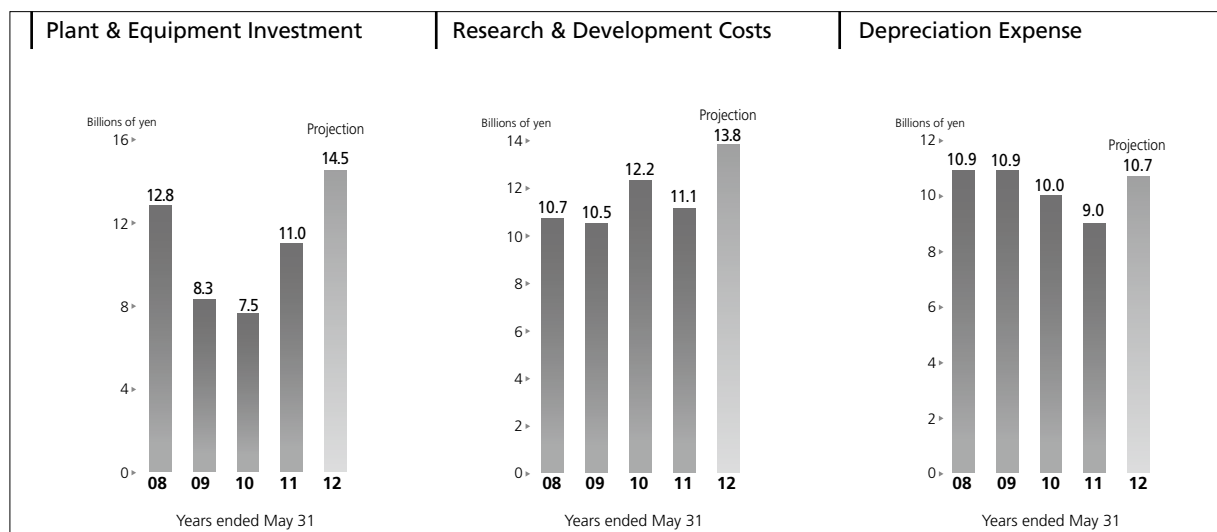
In order to achieve sustainable business operations, the Nippon Kayaku Group is working to reduce risk by preventing and dispersing a broad range of risks associated with our business operations. The following are possible risks which could have a major effect on our Group's operating results, financial position, or image in society.

\* The following have been identified as risks to the Nippon Kayaku Group at the end of the fiscal year ended May 31, 2011. These do not cover events that go beyond our predictions, and are not a comprehensive list of all risks facing our Group.

### 1. Changes in the Business Environment

#### (1) Overall Business

The Nippon Kayaku Group is working to maximize its corporate value by creating a fusion of the technologies it possesses. For this purpose, we have established business strategies, development strategies, and other plans, and are managing our business in a way that is adapted to changes in the business environment. However the functional chemicals business, which accounts for a large percentage of our sales and operating income, is a business area that is highly susceptible to the effects of economic fluctuations.



# Management's Discussion and Analysis (continued)

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Domestic and international economic fluctuations, and changes in the business environment such as sluggish demand and intensifying competition, as well as the resulting changes to our business configuration, may have a major effect on the operating results and financial position of the Nippon Kayaku Group.

## (2) Functional Chemicals Business

The functional chemicals business is focused on information and communications products, which have a short cycle of technological innovation. It is critical that development of new products and creation of the production system be carried out rapidly. An inability to provide new products that satisfy market needs in a timely manner, or lagging behind the radical technological innovations of other companies, represent large risks.

## (3) Pharmaceuticals Business

In the pharmaceuticals business, the downward revision of drug prices and increased use of generic pharmaceuticals are accelerating in Japan. In addition, it is possible in our contracted manufacture of active pharmaceutical ingredients for drug tests that we will be forced to stop production when a customer terminates development. There is the possibility that steps taken by governments to restrict health care expenses or strengthened regulations in some countries could have a significant effect on the operating results and financial position of the Group.

## (4) Safety Systems Business

In the safety systems business, we are engaged in the sales of automobile safety products. There is the possibility of severe effects on the operating results and financial position of the Nippon Kayaku Group in the event of a change in the demand for automobiles due to factors such as changes in the economic conditions or economic policies of the countries and regions where our Group's products are sold, or in the event of a large change in the quantity of automobiles produced due to factors such as disruption in the supply chain required for automobile production as a result of a natural disaster, accident, or other cause.

## (5) Other Businesses

The agrochemicals business is affected greatly by crop-growing conditions, which are subject to climate changes and other phenomena, as well as by the occurrence of harmful insects. It is also affected by tightening governmental regulations related to food safety and environmental effects.

## 2. Rising Interest Rates

When determining the methods for procuring the funds necessary for operations, and the amounts required, the Nippon Kayaku Group considers its financial position as well as the monetary environment. Rising interest rates result in higher interest costs and may interfere with the procurement of funds.

## 3. Exchange Rate Changes

In order to minimize the risk to our overseas business and export-related transactions caused by sudden changes in the exchange rates, the Nippon Kayaku Group takes a number of steps, such as maintaining a balance of transactions denominated in foreign currencies. However it is still possible that there may be profits or losses on the foreign exchange.

Moreover, the operating results for overseas consolidated subsidiaries are converted to yen in order to create the consolidated financial statements, and are therefore affected by exchange rate changes.

## 4. Retirement Benefits

Based on mathematically calculated retirement benefit obligations and forecasts of pension plan assets, the Nippon Kayaku Group calculates its employee retirement benefit expenses and obligations. For this reason, the actual retirement benefits are affected by factors such as changes in the retirement bonus and pension system, changes to the discount rate used in the mathematical calculation, changes in the current value of the pension assets, and changes in the operating environment.

## 5. Valuation of Inventory Assets

The Nippon Kayaku Group applies accounting standards related to inventory valuation. When the net selling price of an inventory asset is below the book value, a loss on revaluation is incurred.

## 6. Fixed Asset Loss

The Nippon Kayaku Group applies accounting standards related to fixed asset loss. In the event of a large decline in the profitability of our business or a drop in real estate prices, a fixed asset loss is incurred.

## 7. Valuation of Securities

The Nippon Kayaku Group possesses stock shares, primarily in order to maintain our relationship with correspondents. In the event of a large drop in the stock market, or a significant drop in the value shares in a company due to a decline in its financial position, a loss on valuation of stock will be incurred.

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## **8. Changes in Laws or Regulations**

The business activities of the Nippon Kayaku Group are conducted in accordance with the laws and regulations of Japan and all overseas countries where we operate. Future changes in laws, regulations, or policies may restrict our business activities or increase costs.

## **9. Overseas Business**

The Nippon Kayaku Group is working to expand its overseas business activities, however this business may be affected by unexpected changes to laws, regulations, or policies in overseas countries, or by events such as terrorism, wars, or other social disruptions.

## **10. Lawsuits**

As the Nippon Kayaku Group conducts business in a wide variety of areas, there is the possibility that it could become the target of lawsuits, legal contests, or other legal actions.

## **11. Violation of Intellectual Property Rights**

While the Nippon Kayaku Group carefully controls its patents and other intellectual property, it may not be possible to fully prevent violation by third parties. On the other hand, there is also the possibility that some of the Group's products or technologies may in the future be viewed as violating the intellectual property rights of another company.

## **12. Research and Development**

The Nippon Kayaku Group recognizes that research and development is a driving force behind business growth, and is actively engaged in R&D activities. For pharmaceuticals and agrochemicals, a long R&D period is required to verify the effectiveness and safety of a product, and vast expense is required in order to develop a single product. For these reasons, it may not be possible to recover large R&D costs in the event that research is abandoned during a later phase of development.

In addition, in the functional chemicals business and safety systems business, both the pace of technological innovation and changes in customer needs are extremely fast. There is the possibility that we may be unable to develop and supply new products in a timely manner.

In the event that R&D activities do not produce results, there is the possibility of significant effects on the operating results and financial position of the Nippon Kayaku Group.

## **13. Procurement of Raw Materials**

In order to obtain stable procurement of raw materials, the Nippon Kayaku Group disperses risk by securing multiple suppliers and other means. However events such as sudden price changes or an interruption in supply of raw materials are possible.

## **14. Product Quality**

The Nippon Kayaku Group has established control standards that are based on ISO9001 and other international standards, and manufactures products in accordance with them. Moreover, through measures such as the purchase of product liability insurance, we have created a risk prevention system for use in the unlikely event that a liability problem occurs. However, there is no guarantee that this system will be able to fully cover any settlement costs. In addition, there is the possibility for pharmaceuticals and agrochemicals that unpredictable side effects or other problems will be discovered after the product is marketed.

## **15. Accidents and Disasters**

In order to prevent damage caused by accidents involving manufacturing equipment or distribution, or by natural disasters, the Nippon Kayaku Group carries out programs to maintain safety. These include regular inspections in accordance with standards determined by laws and internal regulations, improvements to safety equipment and firefighting equipment, and a range of safety activities, safety audits, and environmental and safety diagnoses. However, the Group is unable to guarantee that it will be able to completely prevent or mitigate the effects of an accident or disaster. In the event of an accident or similar event that causes property damage or injury at the plant or in the surrounding area, or that results in a claim for compensation due to interference with customer production, there is the possibility of large costs being incurred and/or serious effects on the reputation of the Nippon Kayaku Group, resulting in severe effects on the operating results and financial position. There is also the possibility of severe effects on the operating results and financial position of our Group in the event of a natural disaster or similar circumstance that results in an inability to deliver products to clients due to a disruption of the supply chain.

## **16. Risk Related to Limitations on the Electric Power Supply**

The Nippon Kayaku Group is conserving power and introducing private power generating equipment as measures to counter the limitations on electric power supply that resulted from the Great East Japan Earthquake. However, in the event of an electric power shortage that exceeds expectations, there is the possibility of severe effects on the operating results and financial position of the Group due to the effects on our production and other activities.