NGK INSULATORS, LTD.

# Annual Report 2013

Year Ended March 31, 2013


# Profile

**Despite a surge in the severity of competition on the global stage, NGK, in line with its commitment to being a company of excellence based on global standards, is steadily evolving to fulfill its corporate mission to constantly provide value to clients, shareholders, employees and society as a whole. Firmly grounded in distinctive ceramics technology, NGK continues to make its presence felt across the "Triple-E" business domains of Energy, Ecology and Electronics.**

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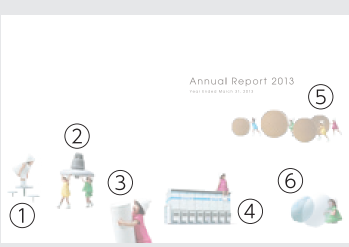



① Ceramic heaters ② Insulators ③ Nano-ceramic membranes ④ NAS® battery systems ⑤ HONEYCERAM® ⑥ Wafer products for electronic devices

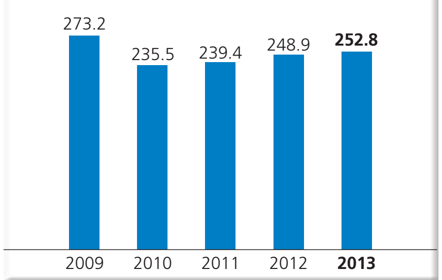
**Forward-Looking Statements**

This annual report contains forward-looking statements about the future plans, strategies, beliefs and performance of NGK and subsidiaries. These forward-looking statements are not historical facts. They are expectations, estimates, forecasts and projections based on information currently available to the Company, and are subject to a number of risks, uncertainties and assumptions, which, without limitation, include economic trends, competition in markets where the Company is active, personal consumption, market demand, the tax system and other legislation. As such, actual results may differ materially from those projected.

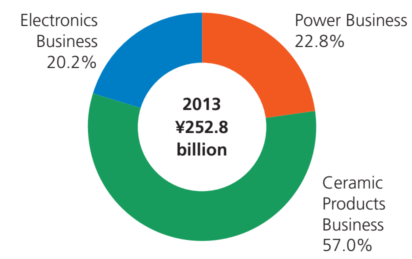
# Financial Highlights

NGK Insulators, Ltd. and Consolidated Subsidiaries
Years Ended March 31

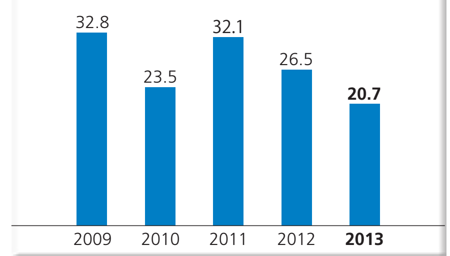
### Net Sales
(Billions of Yen)



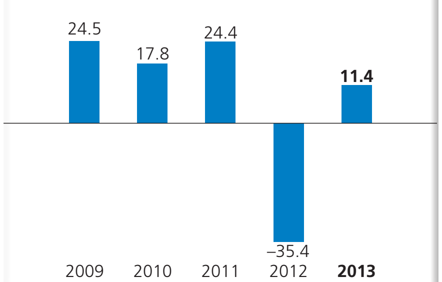

### Sales by Business Segment



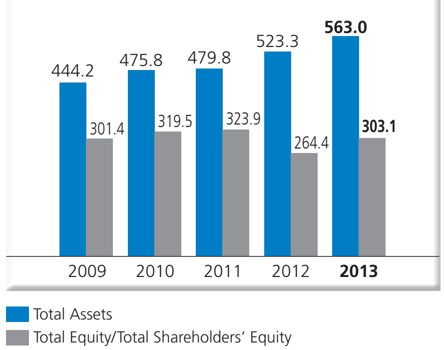

### Operating Income
(Billions of Yen)



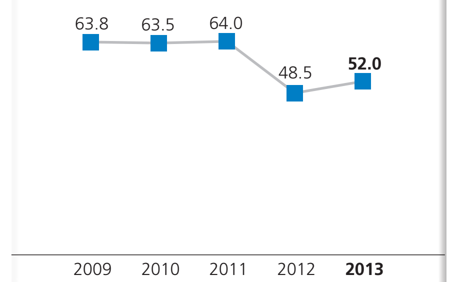

### Net Income (Loss)
(Billions of Yen)



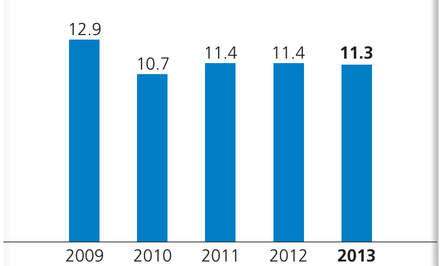

### Total Assets, Total Equity/Total Shareholders' Equity
(Billions of Yen)



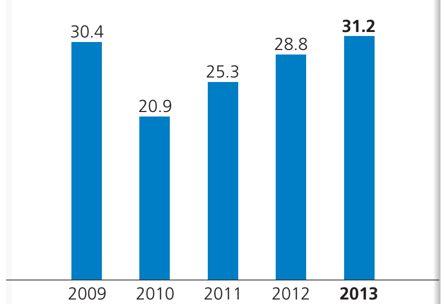

### Equity Ratio
(%)



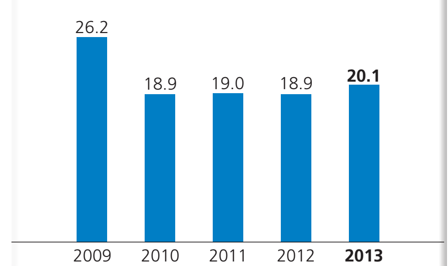

### Research and Development Expenses
(Billions of Yen)



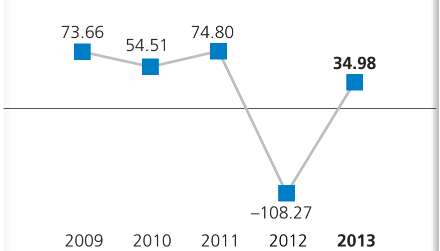

### Capital Expenditures
(Billions of Yen)



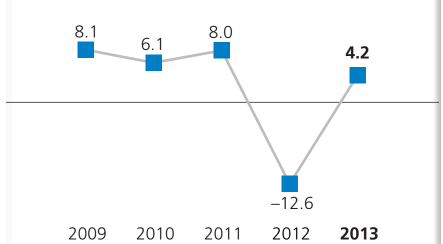

### Depreciation and Amortization
(Billions of Yen)



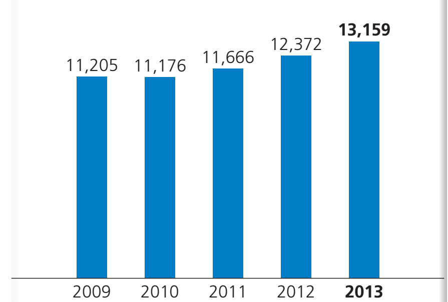

### Net Income (Loss) per Share
(Yen)




### Return on Equity
(%)




### Number of Employees



# Message from Management

## Business Performance in Fiscal 2012

In fiscal 2012, ended March 31, 2013, the Japanese economy was weakened by the slow-down in overseas economies including slowing growth in emerging markets and fiscal problems in Europe. Towards the end of the fiscal year, however, the business climate finally began to improve on expectations for the economic policies of the new Japanese government and a correction of the yen's appreciation.

In this climate, the NGK Group's Ceramic Products Business saw strong demand for automotive ceramics in the U.S. and emerging markets, while demand also grew for ceramic substrates for catalytic converters (HONEYCERAM®) and cordierite diesel particulate filters (DPFs). In the Power Business, we saw a continued slump in demand for insulators in the Chinese market, while demand for sodium-sulfur (NAS®) batteries for storing electricity was also soft. In the Electronics Business, demand for micro-ceramics actuators used in inkjet printers declined sharply, and ceramics for semiconductor manufacturing equipment and beryllium copper products also languished under weak market conditions. As a result, consolidated net sales increased 1.5% year on year to ¥252,789 million.

In terms of earnings, the operating loss in the Power Business improved, while earnings declined in the Electronics Business. Meanwhile, higher earnings in the Ceramic Products Business were offset by upfront expenses for expanding the production capacity for automotive products. As a result, consolidated operating income declined by 21.9% year on year to ¥20,696 million, while ordinary income declined 24.4% to ¥22,029 million. The Company booked a loss from write-down of investment securities under other expenses, and impairment losses on fixed assets at a subsidiary in the Insulator Business in China. However, since this year NGK did not record a loss on NAS battery safety measures or payment of past income taxes stated based on transfer pricing taxation as it did in the previous fiscal year, net income improved significantly year on year to ¥11,422 million.

## Striving for Sustainable Growth

As we now rely increasingly on our primary segment of automotive products due to declining competitiveness in products such as insulators and electronic parts, we will focus on three major tasks: 1) creating new products and new businesses; 2) strengthening the profitability of existing businesses; and 3) transforming into a stronger business structure by paring waste. We will tackle these challenges while guided by five basic policies—seeking innovation in our technologies, emphasizing speed, paying attention to on-site operations, encouraging human resource development, and promoting CSR in which all employees can take part.

In the area of creating new products and new businesses, we will continue to accelerate efforts to bring to market wafer products (see page 3), which represent a promising new business opportunity. We will also enhance the organization of the New Business Planning Office. Furthermore, our entire organization will work in concert, emphasizing cooperation between business sections and head-office sections, to promote activities for identifying development themes. Focusing chiefly on issues related to strong business areas and ones in which we can leverage our core technologies, we will seek to create new products and new businesses to achieve sustained growth.

To strengthen the profitability of existing businesses, we will strive in the area of automotive products to improve profitability by establishing globally optimized production systems to match growing demand, bringing to market products offering high added value, while continuing to move forward with additional cost-saving measures. In the area of ceramics products for use in semiconductor manufacturing equipment, we will strengthen competitiveness by improving product performance and leverage our thermal spraying technologies to continue expanding this business domain.

Meanwhile, by improving and streamlining production systems in keeping with decreasing demand, we will transform our insulators and electronic parts operations and other businesses facing harsh competition and enable them to generate sustained profits. We will also prioritize efforts to stabilize our NAS battery operations to regain the trust of our customers, achieving profitability through cost-cutting measures and efforts to achieve continuous orders.

Furthermore, in addition to raising awareness regarding asset efficiency, moving forward to reduce assets by decreasing inventories, and promoting more efficient capital investment, we will pare waste in all areas and accelerate management and decision-making by streamlining our operations, thereby transforming into a strong business structure capable of competing successfully on the global stage.

Other Group efforts include the establishment in fiscal 2012 of the BCP Division. This organization will promote business continuity planning (BCP) throughout the Group and strive to increase the efficacy of various measures to ensure business continuity during disasters. We are currently subject to an international investigation concerning our competitive situation, to which we are providing full cooperation. In an effort to fairly handle the matter, we have established, during this consolidated fiscal year, an independent committee led by an outside Director and an outside Audit & Supervisory Board Member. CSR occupies a central position in Group management, and we aim to promote CSR activities that involve all Group personnel. We are also working to strengthen compliance systems and enhance our working environments to promote awareness of high ethical standards among our employees and reflect this in our everyday actions.

Through these initiatives, the NGK Group will continue to realize sustained growth and increase corporate value. Meanwhile, in management we will continue to focus on capital efficiency and our shareholders. We ask for the continued support and guidance of all our shareholders in our operations going forward.

August 2013

Taro Kato
*President*

TOPICS

## We are working to create new products that will become future earnings pillars. Here, as an example, we introduce development of wafer products for electronic devices.

**Gallium Nitride (GaN) Wafers**

NGK has successfully developed high-quality gallium nitride (GaN) wafers that dramatically enhance the luminous efficiency of light-emitting diodes (LEDs). Compared with conventional consumer-market LEDs, the new GaN wafers roughly double LED luminous efficiency, making it possible to develop more compact lighting fixtures. These wafers are expected to be used in ultra high brightness LED light sources (business projector, automobile headlights, outdoor illumination and other applications) that were difficult to make using LEDs until now.

**Bonded Wafers**

NGK has developed bonded wafers by combining different wafer materials into a new substrate. By integrating wafer functionality in this way, NGK has successfully achieved a high performance not found in conventional products. Demand for these bonded wafers is expected to expand as substrates for temperature-compensated surface acoustic wave (SAW) filters used in smartphones, tablets and other devices.

## Power Business Group

This business segment covers the production and sale of insulators and devices for power companies and manufacturers of heavy electrical equipment in Japan and overseas.

The business also produces NAS batteries that are used for large-scale power storage.

### Fiscal 2012 Business Overview

Segment sales increased by 1.8% year on year to ¥57,765 million.

Sales of insulators increased from the previous fiscal year due to steady overseas demand for power distribution equipment, although demand continued to stagnate in the Chinese market. NAS battery systems sales remained slow in fiscal 2012, despite restarting factory operations after an investigation into the cause of a fire incident in September 2011.

In terms of earnings, insulators returned to profitability in fiscal 2012, while NAS battery systems reduced their losses after the resumption of operations. As a result, the operating loss for the segment was ¥5,729 million (compared to an operating loss of ¥11,764 million in the previous fiscal year).

## Ceramic Products Business Group

This business segment encompasses three operations: automotive ceramics, where NGK is involved in the production of components essential to automotive exhaust gas purification; industrial process apparatus, in which the Company manufactures products which are highly resistant to heat and chemical corrosion; and industrial heating systems and refractories, built on NGK's sophisticated firing technologies.

### Fiscal 2012 Business Overview

Segment sales were ¥144,109 million, an increase of 7.3% from the previous fiscal year.

Sales of automotive ceramics increased, especially for ceramic substrates for catalytic conversion (HONEYCERAM and large-size HONEYCERAM) and cordierite diesel particulate filters (DPFs). The increase was driven by strong sales of passenger vehicles in the U.S. and emerging markets, as well as higher truck sales in the U.S. and increased demand in the machinery and agricultural machinery markets, spurred by the introduction of exhaust emission regulations. Industrial process apparatuses saw sales decline due to a slump in capital expenditure in the main customer sectors of electronics and electrical materials. On the other hand, there was an increase in repair and maintenance projects for low-level radioactive waste processing plants.

Operating income fell 21.9% to ¥25,984 million, despite the higher sales in automotive ceramics, mainly because of upfront expenses for expanding production capacity and lower selling prices for some products.

## Electronics Business Group

This business segment is composed of three operations: specialty metals, which deals in beryllium copper; high-performance ceramics for providing ceramic products for semiconductor manufacturing equipment; and electronic components, a business engaged in developing components by applying functional ceramics technology.

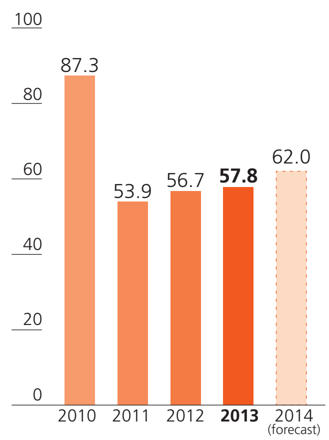
### Fiscal 2012 Business Overview

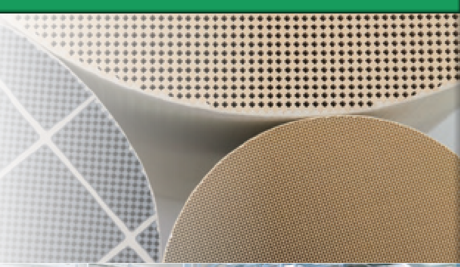
Segment sales were ¥51,087 million, down 12.2% from the previous fiscal year.

Sales of beryllium copper products declined as market conditions deteriorated and copper prices fell. Micro-ceramics actuators used in inkjet printers also saw sales fall as demand shrank and competition grew. Sales of ceramic products for semiconductor manufacturing equipment declined on worsening market conditions for semiconductor manufacturing equipment, despite receiving a boost from a business acquisition. Meanwhile, group sales of consolidated subsidiary SOSHIN ELECTRIC CO., LTD. were lower amid soft demand for information and communications terminals, semiconductor manufacturing equipment, and machine tools.

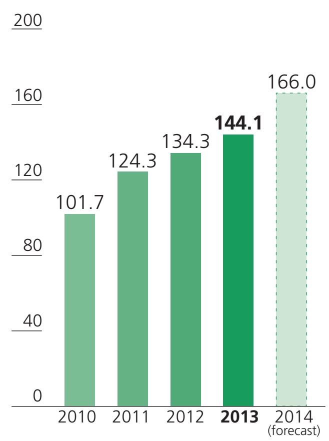
Operating income fell by 91.1% year on year to ¥441 million because of the much lower sales.

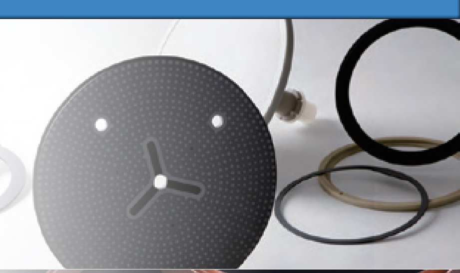
Net Sales (Billions of Yen)

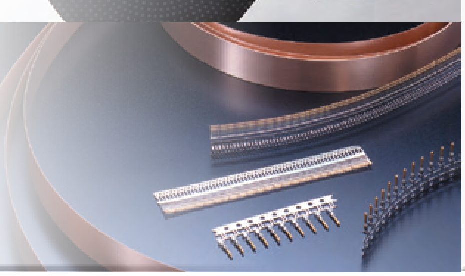


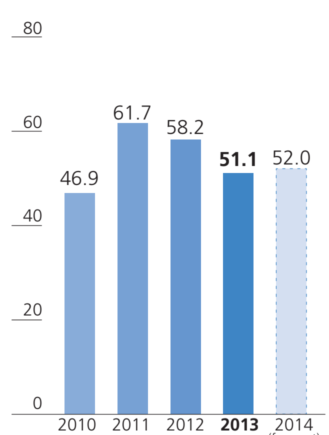
Net Sales (Billions of Yen)





Net Sales (Billions of Yen)




## Fiscal 2013 Outlook

The economic outlook remains uncertain. Although the U.S. economy appears to have entered a phase of gentle recovery, there are numerous causes for concern, including slowing economic growth in emerging markets, fiscal problems in Europe, and geopolitical risks. In the Japanese economy, monetary easing and various economic measures should help strengthen the Japanese economy, but prospects for full-fledged growth remain unclear.

Under these conditions, the NGK Group expects to see higher demand for automotive products, and a gradual recovery in market conditions for ceramics for semiconductor manufacturing equipment. In regards to NAS batteries for storing electricity, we expect overseas projects in the second half of the fiscal year. Based on these forecasts, we expect to see a year-on-year increase in sales as a whole. On the earnings front, while we will continue to incur upfront expenses for expanding the production capacity for automotive products, we are projecting higher overall earnings on higher sales and the beneficial impact of the yen's depreciation.

The Company and its consolidated domestic subsidiaries apply the declining-balance method for depreciating property, plant and equipment, except buildings, for which the straight-line method is used. However, effective from the fiscal year ending March 31, 2014, the NGK Group plans to change to the straight-line method to ensure that expenses are matched properly to income and to unify the NGK Group's accounting treatment. This change is expected to result in an approximate ¥3.0 billion decline in depreciation expenses in the fiscal year ending March 31, 2014, compared with when using the previous method.

In terms of our consolidated forecasts, we are projecting net sales of ¥280.0 billion, up 10.8% year on year, operating income of ¥28.0 billion, up 35.3%, ordinary income of ¥29.0 billion, up 31.6%, and net income of ¥22.0 billion, up 92.6%. These forecasts are premised on foreign exchange rates of ¥90 to the U.S. dollar and ¥120 to the euro.

# Corporate Social Responsibility


Corporate Social Responsibility Report
http://www.ngk.co.jp/english/csr/

## CSR from NGK's Perspective

To contribute to society in a manner that embodies our corporate philosophy, the NGK Group is committed to offering products and services that help create a better social environment and bring new value to society.

By putting these activities into practice, we are working together with our customers, employees and business partners to fulfill our social responsibility as a company in every respect, an act essential to meeting the public's expectations and earning their trust.

Refer to the Corporate Social Responsibility Report for more information concerning NGK's CSR activities.

# Corporate Governance

## Basic Approach to Corporate Governance and Status Initiatives

To ensure appropriate operations and transparent management, NGK has set its sights on establishing and maintaining an organization capable of swiftly responding to changes in the business environment, and a fair and open management system that emphasizes the interests of shareholders. These components comprise NGK's basic approach to corporate governance.

To put this approach into practice, NGK has chosen a governance structure anchored by an Audit & Supervisory Board. In addition to the General Meeting of Shareholders, the Board of Directors and the Audit & Supervisory Board, corporate governance at NGK includes the Executive Committee and several other committees established to assist the President in management decision-making. By deliberating and reviewing important matters, these bodies help to enhance governance efficacy.

Considering the importance of swift and optimal decision-making and execution for responding promptly to changes in the operating environment, NGK introduced a corporate officer system, thus separating the management's decision-making and supervision functions from business execution functions, and clearly defining the responsibilities of both.

## Internal Control Systems

The Board of Directors and the executive bodies overseen by the President are responsible for establishing and operating NGK's internal control system. The Auditing Department, a specialist internal audit body, is responsible for monitoring the status of business execution at each operating division. Moreover, NGK has established the Internal Controls Committee to manage its reporting system for internal controls pursuant to Japan's Financial Instruments and Exchange Law. The NGK Group Guidelines for Corporate Behavior were formulated as a policy that embodies the Group's corporate and management philosophies and as a guide for the actions we take. These guidelines specify the Group's fundamental stance with respect to business activities and corporate behavior to ensure that it is a company that remains beneficial to society even in the pursuit of its economic goals. The CSR Committee, meanwhile, is responsible for a range of activities that include formulating the NGK Group Guidelines for Corporate Behavior, ensuring that compliance with laws, regulations and corporate ethics is fully entrenched throughout the Group, and developing responses to incidents and accidents that it believes could significantly impact the Company. The committee's actions are designed to maintain and improve the level of the Group's internal control system.

## R&D Activities

The NGK Group sees R&D as an important management priority. As such, the Group actively allocates resources to R&D, with the aim of providing high value-added, highly functional new products. R&D activities are based on materials development technology and systemization technology centered on fine ceramics. The Group's R&D activities are based on a two-part structure consisting of activities at the parent company's R&D divisions, which are engaged in basic to applied R&D, and activities that are closer in nature to product development, which are conducted at business groups and subsidiaries.

The Group's overall R&D expenses in fiscal 2012 were ¥11,316 million. These expenses included costs of ¥888 million related to contract-based research undertaken outside the Group. R&D themes, achievements and expenses for each business group are as follows.

### Power Business Group

The Power Business Group is engaged in applied research focused on smart grid and related fields, with a view to expanding NGK-manufactured Sodium Sulfur (NAS) battery systems for storing power. In the power distribution business, our consolidated subsidiary ENERGY SUPPORT CORPORATION is engaged in R&D related to enhancing the functionality and performance chiefly of switches and cut-out switches. ENERGY SUPPORT is also active in promoting joint R&D with electric power companies.

R&D expenses in this segment totaled ¥1,831 million.

### Ceramic Products Business Group

The Ceramic Products Business Group conducts R&D focused on several themes: improving production techniques and performance with respect to diesel particulate filters (DPFs); enhancing production techniques for ceramic honeycomb substrates used in catalytic converters for diesel and other automobiles; developing heating and drying systems for glass substrate and film; and refining waste treatment systems for nuclear power plants.

R&D expenses in this segment totaled ¥3,994 million.

### Electronics Business Group

Research in the Electronics Business Group is focused on applied devices based on core piezoelectric ceramics technology, ceramic components and modules for addressing the advanced functionality of semiconductor production equipment, and beryllium copper strip products for electronic parts such as connectors and relays for automobiles, industrial equipment and digital appliances.

Furthermore, this segment is continuing efforts to develop low-cost mass production technology for high-intensity discharge lamp arc tubes made from translucent alumina ceramics. Consolidated subsidiary SOSHIN ELECTRIC CO., LTD. conducts R&D focused on large-capacity capacitors and multi-layered dielectric filters, primarily for the fields of power electronics and information and communications.

R&D expenses in this segment totaled ¥519 million.

### Corporate R&D

Corporate R&D includes the R&D Headquarters, which is responsible for Company-wide R&D activities. The R&D Headquarters' primary mission is to innovate and nurture basic ceramics technology over the medium and long terms and to sow the seeds of new products. Corporate R&D consists of the Wafer Project, the NCM (Nano-Ceramic Membranes) Project, the Functional Materials Development Project, the Advanced Materials Development Center, the Materials Research Laboratory and the Future Technology Management Center.

In fiscal 2012, Corporate R&D focused on the R&D theme of gallium nitride (GaN) wafers.

R&D expenses in Corporate R&D were ¥4,970 million.

Note: The above amounts do not include consumption tax.

## Summary of Income Statements

The NGK Group's Ceramic Products Business saw strong demand for automotive products in the U.S. and emerging markets, while demand also grew for ceramic substrates for catalytic converters (HONEYCERAM and large-size HONEYCERAM) and cordierite diesel particulate filters (DPFs).

In the Power Business, we saw a continued slump in demand for insulators in the Chinese market, while demand for Sodium Sulfur (NAS) battery systems for storing electricity was also soft.

In the Electronics Business, demand for micro-ceramics actuators used in inkjet printers declined sharply, and ceramics for semiconductor manufacturing equipment and beryllium copper products also languished under weak market conditions. As a result, consolidated net sales increased 1.5% year on year to ¥252,789 million.

In terms of earnings, the operating loss in the Power Business improved, while earnings declined in the Electronics Business. Meanwhile, an increase in earnings in the Ceramic Products Business was offset by upfront expenses for expanding the production capacity for automotive products. As a result, consolidated operating income declined by 21.9% year on year to ¥20,696 million, while ordinary income declined 24.4% to ¥22,029 million.

The Company booked a loss from write-down of investment securities under other expenses, and impairment loss on fixed assets at a subsidiary in the Insulator Business in China. However, since NGK did not record a loss on NAS battery safety measures or payment of past income taxes stated based on transfer pricing taxation this year as it did in the previous fiscal year, net income improved significantly year on year to ¥11,422 million.

## Financial Position

As of March 31, 2013, total assets were ¥563,030 million, an increase of 7.6% from the previous fiscal year-end. Current assets increased by 7.2% from a year earlier to ¥303,567 million, mainly due to an increase in notes and accounts receivable reflecting a concentration of sales in the fourth quarter, in addition to increases in inventories and marketable securities. Fixed assets rose 8.0% from a year earlier to ¥259,463 million, mainly reflecting higher property, plant and equipment due to an increase in capital expenditures, despite a decrease in investment securities chiefly due to the sale and redemption of such securities.

Current liabilities decreased 23.4% from a year earlier to ¥86,346 million, mainly due to decreases in the current portion of long-term debt and provision for NAS battery safety measures. Long-term liabilities increased 18.7% to ¥173,611 million, primarily due to an increase in long-term debt.

Total equity stood at ¥303,073 million, or 14.6% higher than the previous fiscal year-end, primarily due to an increase in unrealized gain on available-for-sale securities, in addition to an increase in foreign currency translation adjustments caused by the weak yen.

Consequently, the equity ratio was 52.0%, compared with 48.5% at the previous fiscal year-end, while net assets per share rose ¥118.48 from the previous fiscal year to ¥896.26.

## Cash Flows

There was a net increase of ¥17,696 million in total cash and cash equivalents from the previous fiscal year-end to ¥102,845 million. This reflected ¥3,680 million in net cash provided by operating activities, ¥582 million in net cash used in investing activities, and ¥12,448 million in net cash provided by financing activities.

### Cash Flow from Operating Activities

Net cash provided by operating activities was ¥3,680 million. The main components were income before income taxes and minority interests of ¥17,702 million and depreciation and amortization, partly offset by a decrease in provision for NAS battery safety measures and income taxes paid. Compared to the previous year, net cash provided by operating activities declined by ¥10,171 million due to a decrease in provision for NAS battery safety measures, despite a change to income before income taxes and minority interests from a loss before income taxes and minority interests in the previous fiscal year.

### Cash Flow from Investing Activities

Net cash used in investing activities was ¥582 million. Cash was mainly used for capital expenditures on facilities for automotive-related products at subsidiaries, etc., based in Mexico and Poland, despite proceeds from sales and redemption of investment securities and a decrease in time deposits.

Compared to the previous fiscal year, net cash used in investing activities decreased ¥44,856 million, mainly due to a decrease in purchases of investment securities and a decrease in time deposits, compared with an increase in time deposits in the previous fiscal year.

### Cash Flow from Financing Activities

Net cash provided by financing activities was ¥12,448 million, mainly reflecting proceeds from long-term debt, despite cash dividends paid. Compared to the previous fiscal year, net cash provided by financing activities decreased by ¥44,160 million mainly due to a decrease in new long-term borrowings.

Effective from the fiscal year ended March 31, 2013, the Company and its domestic consolidated subsidiaries have changed the revenue recognition policy. Under the new policy, revenues are to be recognized upon delivery of goods to customers in accordance with conditions in Sales Contracts. Previously, revenues were recognized mainly upon shipment of goods to customers. Accordingly, year-on-year comparisons are presented based on retrospectively adjusted figures for the previous fiscal year.

## Capital Expenditures

Capital expenditures for the NGK Group totaled ¥31,216 million.

Capital expenditures in the Power Business segment totaled ¥2,747 million, and were mainly related to NAS battery safety measures.

In the Ceramic Products Business segment, capital expenditures totaled ¥24,109 million and were concentrated mainly on production facilities for automotive ceramics products.

Capital expenditures in the Electronics Business segment totaled ¥2,327 million, centered on capital expenditures related to ceramics products for semiconductor manufacturing equipment.

At the Head Office, capital expenditures were ¥2,033 million, principally for upgrading facilities.

## Business Risks

### Production Bases

The NGK Group's main production bases are located in Aichi Prefecture and Ishikawa Prefecture in Japan, and overseas in the Americas, Europe, Asia and other regions. The Group operates a global production system for its core products, such as ceramic honeycomb substrates for automotive catalytic converters, from the perspective of manufacturing close to demand centers and achieving optimal production. This ensures that risk is dispersed among manufacturing sites. However, irrespective of whether a production base is in Japan or overseas, if facilities at a major production base are seriously damaged by a natural disaster such as an earthquake, or fire, production may stop for a considerable period of time, thereby adversely affecting the NGK Group's business performance and financial condition. Overseas operations, in particular, carry such potential risks as compliance with the host country's laws, regulations or taxes, adverse changes in the economic environment such as fluctuations in exchange rates, difficulty in securing, educating and training personnel, inadequate infrastructure and societal problems such as terrorism and war. The unforeseen occurrence of any of these events could adversely affect the NGK Group's business performance and financial condition.

### Exchange Rates, Interest Rates and Material Prices

The NGK Group produces and sells products worldwide. Consequently, the Group hedges the risk of short-term changes in the exchange rates of major currencies, particularly the U.S. dollar, euro and yen, with forward foreign exchange contracts and other financial instruments. However, appreciation of the yen could cause a decline in net sales and earnings.

The NGK Group plans to continue making the necessary capital investments to expand its businesses and improve productivity. The Group's funding needs include these capital expenditures and the redemption of corporate bonds. In the event of interest rate rises, future fund procurement costs may increase, which could adversely impact the NGK Group's business performance and financial condition.

Rises in raw materials prices have led to higher manufacturing costs at NGK Group businesses. To minimize this factor, the Group raises sales prices, cuts costs, improves productivity and reduces business expenses. The NGK Group endeavors to absorb rises in purchasing prices, but excessive rises in the prices for raw materials may adversely impact the Group's business performance and financial condition.

### New Products

The NGK Group works to create new products to secure its growth prospects. Looking ahead, the Group will make focused investments in new products that should become pillars of growth. At the same time, NGK is making significant capital expenditures in stages for products for which demand is expected to expand. However, in the event that these capital expenditures are not made on schedule, this may adversely impact the NGK Group's medium-term growth prospects.

### Changes in the Business Environment

Demand for the products that the NGK Group manufactures and sells is strongly influenced by changes in the economic climate in and outside of Japan. Such changes may adversely impact the Group's business performance and financial condition.

### Product Quality

Guided by its Corporate Quality Policy, the NGK Group conducts quality-related activities in a committed drive to ensure consistent high quality. These efforts notwithstanding, the Group cannot completely eliminate the possibility of quality-related issues from every product that it sells or manufactures. The occurrence of such problems could therefore have a substantial and adverse impact on the Group's business performance.

## NGK INSULATORS, LTD. AND CONSOLIDATED SUBSIDIARIES
## CONSOLIDATED BALANCE SHEET
## MARCH 31, 2013

| ASSETS | Millions of Yen 2013 | Millions of Yen 2012 | Thousands of U.S. Dollars (Note 1) 2013 |
|---|---|---|---|
| CURRENT ASSETS: | | | |
| Cash and cash equivalents (Note 14) | ¥ 102,845 | ¥ 85,149 | $ 1,094,096 |
| Time deposits (Note 14) | 742 | 12,776 | 7,894 |
| Marketable securities (Notes 4 and 14) | 17,691 | 18,202 | 188,202 |
| Notes and accounts receivable: | | | |
| Trade notes and accounts (Note 14) | 57,654 | 53,492 | 613,340 |
| Unconsolidated subsidiaries and associated companies | 1,519 | 1,424 | 16,160 |
| Other | 9,335 | 7,944 | 99,308 |
| Allowance for doubtful accounts | (110) | (112) | (1,170) |
| Total | 68,398 | 62,748 | 727,638 |
| Inventories (Note 5) | 95,944 | 79,870 | 1,020,681 |
| Deferred tax assets (Note 11) | 14,663 | 21,470 | 155,989 |
| Prepaid expenses and other current assets | 3,284 | 2,897 | 34,936 |
| Total current assets | 303,567 | 283,112 | 3,229,436 |
| PROPERTY, PLANT AND EQUIPMENT (Note 6): | | | |
| Land | 21,248 | 21,107 | 226,043 |
| Buildings and structures | 124,746 | 116,286 | 1,327,085 |
| Machinery and equipment | 293,908 | 246,566 | 3,126,681 |
| Construction in progress | 20,556 | 14,577 | 218,681 |
| Total | 460,458 | 398,536 | 4,898,490 |
| Accumulated depreciation | (296,573) | (263,091) | (3,155,032) |
| Net property, plant and equipment | 163,885 | 135,445 | 1,743,458 |
| INVESTMENTS AND OTHER ASSETS: | | | |
| Investment securities (Notes 4 and 14) | 45,080 | 58,231 | 479,574 |
| Investments in and loans to unconsolidated subsidiaries and associated companies | 21,053 | 19,639 | 223,968 |
| Intangible assets | 5,391 | 3,513 | 57,351 |
| Prepaid pension cost (Note 8) | 17,469 | 16,946 | 185,841 |
| Deferred tax assets (Note 11) | 3,856 | 3,991 | 41,021 |
| Other assets | 2,729 | 2,446 | 29,032 |
| Total investments and other assets | 95,578 | 104,766 | 1,016,787 |
| TOTAL | ¥ 563,030 | ¥ 523,323 | $ 5,989,681 |

(Continued)

| LIABILITIES AND EQUITY | Millions of Yen | | Thousands of U.S. Dollars (Note 1) |
|---|---|---|---|
| | 2013 | 2012 | 2013 |
| CURRENT LIABILITIES: | | | |
| Short-term borrowings (Notes 7 and 14) | ¥ 3,106 | ¥ 2,924 | $ 33,043 |
| Current portion of long-term debt (Notes 7 and 14) | - | 8,000 | - |
| Notes and accounts payable: | | | |
| Trade notes and accounts (Note 14) | 24,998 | 24,192 | 265,936 |
| Unconsolidated subsidiaries and associated companies | 2,979 | 2,929 | 31,692 |
| Other | 13,618 | 9,179 | 144,872 |
| Total | 41,595 | 36,300 | 442,500 |
| Accrued expenses | 10,976 | 10,008 | 116,766 |
| Provision for NAS battery safety measures | 21,018 | 42,334 | 223,595 |
| Income taxes payable (Note 14) | 1,462 | 3,835 | 15,553 |
| Other current liabilities | 8,189 | 9,249 | 87,117 |
| Total current liabilities | 86,346 | 112,650 | 918,574 |
| LONG-TERM LIABILITIES: | | | |
| Long-term debt (Notes 7 and 14) | 150,710 | 118,701 | 1,603,298 |
| Liability for retirement benefits (Note 8) | 16,255 | 16,544 | 172,926 |
| Provision for product warranties | 358 | 659 | 3,809 |
| Deferred tax liabilities (Note 11) | 2,758 | 6,852 | 29,340 |
| Other long-term liabilities | 3,530 | 3,535 | 37,553 |
| Total long-term liabilities | 173,611 | 146,291 | 1,846,926 |
| TOTAL LIABILITIES | 259,957 | 258,941 | 2,765,500 |
| CONTINGENT LIABILITIES (Note 16) | | | |
| EQUITY (Note 9): | | | |
| SHAREHOLDERS' EQUITY | | | |
| Common stock: | | | |
| Authorized - 735,030 thousand shares | | | |
| Issued - 337,560 thousand shares | | | |
| at March 31, 2013 and 2012 | 69,849 | 69,849 | 743,075 |
| Capital surplus | 85,136 | 85,138 | 905,702 |
| Stock acquisition rights (Note 10) | 740 | 741 | 7,872 |
| Retained earnings | 167,220 | 158,634 | 1,778,936 |
| Treasury stock - at cost: 11,011 thousand shares and 11,043 thousand shares at March 31, 2013 and 2012, respectively | (14,362) | (14,413) | (152,787) |
| Accumulated other comprehensive income | | | |
| Unrealized gain on available-for-sale securities | 7,965 | 4,479 | 84,734 |
| Deferred gain on derivatives under hedge accounting | 22 | 35 | 234 |
| Foreign currency translation adjustments | (21,031) | (47,727) | (223,734) |
| Postretirement benefit liability adjustment of foreign subsidiaries | (2,127) | (2,036) | (22,628) |
| Total | 293,412 | 254,700 | 3,121,404 |
| Minority interests | 9,661 | 9,682 | 102,777 |
| Total equity | 303,073 | 264,382 | 3,224,181 |
| TOTAL | ¥563,030 | ¥523,323 | $5,989,681 |

See notes to consolidated financial statements.

(Concluded)

## NGK INSULATORS, LTD. AND CONSOLIDATED SUBSIDIARIES
## CONSOLIDATED STATEMENT OF OPERATIONS
## YEAR ENDED MARCH 31, 2013

| | Millions of Yen | | Thousands of U.S. Dollars (Note 1) |
|---|---|---|---|
| | 2013 | 2012 | 2013 |
| NET SALES | ¥252,789 | ¥248,948 | $2,689,244 |
| COST OF SALES (Note 12) | 178,052 | 172,456 | 1,894,170 |
| Gross profit | 74,737 | 76,492 | 795,074 |
| 12) | 54,041 | 49,987 | 574,904 |
| Operating income | 20,696 | 26,505 | 220,170 |
| OTHER INCOME (EXPENSES): | | | |
| Interest and dividend income | 1,468 | 1,961 | 15,617 |
| Interest expense | (1,706) | (1,248) | (18,149) |
| (Loss) gain on sales of and disposals of property, plant and equipment - net | (93) | 213 | (989) |
| Equity in earnings of unconsolidated subsidiaries and associated companies | 2,374 | 1,877 | 25,255 |
| Foreign exchange gain | 1,610 | 526 | 17,128 |
| Subsidy income | 738 | 1,476 | 7,851 |
| Gain on negative goodwill | - | 1,926 | - |
| Loss on evaluation of derivative | (55) | (410) | (585) |
| Depreciation expense on idle facilities | (301) | (403) | (3,202) |
| Gain on sales of investment securities - net | 322 | - | 3,425 |
| Loss from write-down of securities | (3,045) | (657) | (32,394) |
| Impairment loss on fixed assets (Note 6) | (2,248) | - | (23,915) |
| Impairment loss on fixed assets associated with reorganization of business structure | - | (2,740) | - |
| Provision for product warranties | - | (260) | - |
| Provision of reserve for loss on NAS battery safety measures | (2,800) | - | (29,787) |
| Loss on NAS battery safety measures | - | (61,097) | - |
| Other-net | 742 | 314 | 7,894 |
| Other expenses - net | (2,994) | (58,522) | (31,851) |
| INCOME (LOSS) BEFORE INCOME TAXES AND MINORITY | 17,702 | (32,017) | 188,319 |
| INCOME TAXES (Note 11) | | | |
| Current | | | |
| Current period | 4,148 | 4,318 | 44,128 |
| Previous periods | - | 7,754 | - |
| Deferred | 1,809 | (9,555) | 19,244 |
| Total income taxes | 5,957 | 2,517 | 63,372 |
| NET INCOME (LOSS) BEFORE MINORITY INTERESTS | 11,745 | (34,534) | 124,947 |
| MINORITY INTERESTS IN NET INCOME | 323 | 817 | 3,436 |
| NET INCOME (LOSS) | ¥ 11,422 | ¥ (35,351) | $ 121,511 |
| | Yen | | U.S. Dollars |
| PER SHARE OF COMMON STOCK (Notes 2.u. and 18) | | | |
| Basic net income (loss) | ¥34.98 | ¥(108.27) | $0.372 |
| Diluted net income | 34.92 | - | 0.371 |
| Cash dividends applicable to the year | 20.00 | 20.00 | 0.213 |

See notes to consolidated financial statements.

## NGK INSULATORS, LTD. AND CONSOLIDATED SUBSIDIARIES
## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
## YEAR ENDED MARCH 31, 2013

| | Millions of Yen | | Thousands of U.S. Dollars (Note 1) |
|---|---|---|---|
| | 2013 | 2012 | 2013 |
| NET INCOME (LOSS) BEFORE MINORITY INTERESTS | ¥11,745 | ¥(34,534) | $124,947 |
| OTHER COMPREHENSIVE INCOME (Note 17) | | | |
| Unrealized gain (loss) on available-for-sale securities | 3,492 | (402) | 37,149 |
| Deferred (loss) gain on derivatives under hedge accounting | (12) | 6 | (128) |
| Foreign currency translation adjustments | 27,203 | (10,193) | 289,393 |
| Share of other comprehensive income of associates accounted for by the equity method | 1 | (2) | 11 |
| Post retirement benefit liability adjustments of foreign subsidiaries | (90) | (381) | (957) |
| Total other comprehensive income | 30,594 | (10,972) | 325,468 |
| COMPREHENSIVE INCOME | ¥42,339 | ¥(45,506) | $450,415 |
| TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO (Note 17): | | | |
| Owners of parent company | ¥41,502 | ¥(46,278) | ¥441,511 |
| Minority interests | 837 | 772 | 8,904 |

See notes to consolidated financial statements.

## NGK INSULATORS, LTD. AND CONSOLIDATED SUBSIDIARIES
## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
## YEAR ENDED MARCH 31, 2013

| | Thousands | | | | | |
|---|---|---|---|---|---|---|
| | Outstanding Number of Common Stock | Common Stock | Capital Surplus | Stock Acquisition Rights | Retained Earnings | Treasury Stock |
| Balance at April 1, 2011 | 326,516 | ¥69,849 | ¥85,137 | ¥698 | ¥200,829 | ¥(14,416) |
| Cumulative effect of the change in accounting policy (Note 3) | - | - | - | - | (307) | - |
| Balance after retrospective adjustment at April 1, 2011 | 326,516 | 69,849 | 85,137 | 698 | 200,522 | (14,416) |
| Net loss | - | - | - | - | (35,351) | - |
| Cash dividends, ¥ 20 per share | - | - | - | - | (6,530) | - |
| Purchase of treasury stock | (21) | - | - | - | - | (25) |
| Disposal of treasury stock | 22 | - | 1 | - | - | 28 |
| Adjustment of retained earnings for subsidiaries which were unconsolidated in prior year | - | - | - | - | (7) | - |
| Net changes other thar shareholders' equity | - | - | - | 43 | - | - |
| Balance at March 31, 2012 | 326,517 | 69,849 | 85,138 | 741 | 158,634 | (14,413) |
| Net income | - | - | - | - | 11,422 | - |
| Cash dividends, ¥20 per share | - | - | - | - | (6,530) | - |
| Purchase of treasury stock | (24) | - | - | - | - | (22) |
| Disposal of treasury stock | 56 | - | (2) | - | (4) | 73 |
| Effect of changes in fiscal yea of consolidated subsidiaries | - | - | - | - | 3,698 | - |
| Net changes other thar shareholders' equity | - | - | - | (1) | - | - |
| Balance at March 31, 2013 | 326,549 | ¥69,849 | ¥85,136 | ¥740 | ¥167,220 | ¥(14,362) |

| | Common Stock | Capital Surplus | Stock Acquisition Rights | Retainec Earnings | Treasury Stock |
|---|---|---|---|---|---|
| Balance at March 31, 2012 | $743,075 | $905,723 | $7,883 | $1,687,596 | $(153,330) |
| Net income | - | - | - | 121,511 | - |
| Cash dividends, $0.213 per share | - | - | - | (69,468) | - |
| Purchase of treasury stock | - | - | - | - | (234) |
| Disposal of treasury stock | - | (21) | - | (43) | 777 |
| Effect of changes in fiscal yea of consolidated subsidiaries | - | - | - | 39,340 | - |
| Net changes other thar shareholders' equity | - | - | (11) | - | - |
| Balance at March 31, 2013 | $743,075 | $905,702 | $7,872 | $1,778,936 | $(152,787) |

See notes to consolidated financial statements.

**Millions of Yen**

| Accumulated Other Comprehensive Income | | | | | | |
|---|---|---|---|---|---|---|
| Unrealized Gain on Available-for-sale Securities | Deferred Gain on Derivatives under Hedge Accounting | Foreign Currency Translation Adjustments | Postretirement Benefit Liability Adjustment of Foreign Subsidiaries | Total | Minority Interests | Total Equity |
| ¥4,826 | ¥ 32 | ¥(37,525) | ¥(1,655) | ¥307,775 | ¥16,170 | ¥323,945 |
| - | - | - | - | (307) | (40) | (347) |
| 4,826 | 32 | ¥(37,525) | (1,655) | 307,468 | 16,130 | 323,598 |
| - | - | - | - | (35,351) | - | (35,351) |
| - | - | - | - | (6,530) | - | (6,530) |
| - | - | - | - | (25) | - | (25) |
| - | - | - | - | 29 | - | 29 |
| - | - | - | - | (7) | - | (7) |
| (347) | 3 | (10,202) | (381) | (10,884) | (6,448) | (17,332) |
| 4,479 | 35 | (47,727) | (2,036) | 254,700 | 9,682 | 264,382 |
| - | - | - | - | 11,422 | - | 11,422 |
| - | - | - | - | (6,530) | - | (6,530) |
| - | - | - | - | (22) | - | (22) |
| - | - | - | - | 67 | - | 67 |
| - | - | - | - | 3,698 | - | 3,698 |
| 3,486 | (13) | 26,696 | (91) | 30,077 | (21) | 30,056 |
| ¥7,965 | ¥ 22 | ¥(21,031) | ¥(2,127) | ¥293,412 | ¥ 9,661 | ¥303,073 |

**Thousands of U.S. Dollars (Note 1)**

| Accumulated Other Comprehensive Income | | | | | | |
|---|---|---|---|---|---|---|
| Unrealized Gain on Available-for-sale Securities | Deferred Gain on Derivatives under Hedge Accounting | Foreign Currency Translation Adjustments | Postretirement Benefit Liability Adjustment of Foreign Subsidiaries | Total | Minority Interests | Total Equity |
| $47,649 | $ 372 | $(507,734) | $(21,660) | $2,709,574 | $103,000 | $2,812,574 |
| - | - | - | - | 121,511 | - | 121,511 |
| - | - | - | - | (69,468) | - | (69,468) |
| - | - | - | - | (234) | - | (234) |
| - | - | - | - | 713 | - | 713 |
| - | - | - | - | 39,340 | - | 39,340 |
| 37,085 | (138) | 284,000 | (968) | 319,968 | (223) | 319,745 |
| $84,734 | $ 234 | $(223,734) | $(22,628) | $3,121,404 | $102,777 | $3,224,181 |

## NGK INSULATORS, LTD. AND CONSOLIDATED SUBSIDIARIES
## CONSOLIDATED STATEMENT OF CASH FLOWS
## YEAR ENDED MARCH 31, 2013

| | Millions of Yen | | |
|---|---|---|---|
| | 2013 | 2012 | 2013 |
| OPERATING ACTIVITIES: | | | |
| Income (loss) before income taxes and minority interests | ¥ 17,702 | ¥(32,017) | $ 188,319 |
| Adjustments for: | | | |
| Income taxes - paid | (8,067) | (12,142) | (85,819) |
| Depreciation and amortization | 20,089 | 18,924 | 213,712 |
| Impairment loss on fixed assets | 2,248 | - | 23,915 |
| Impairment loss on fixed assets associated with reorganization | - | 2,740 | - |
| Gain on negative goodwill | - | (1,926) | - |
| Increase in provision for product warranties | (354) | (1,284) | (3,765) |
| (Decrease) increase of provision for NAS battery safety | (21,316) | 42,334 | (226,765) |
| Equity in earnings of unconsolidated subsidiaries and associated companies | (2,374) | (1,877) | (25,255) |
| Loss on NAS battery safety measures | - | 4,443 | - |
| Changes in assets and liabilities: | | | |
| Decrease (increase) in notes and accounts receivable - | 897 | (9,572) | 9,542 |
| (Increase) decrease in inventories | (5,401) | 104 | (57,457) |
| Decrease (increase) in other current assets | 47 | (1,195) | 500 |
| (Increase) decrease in prepaid pension cost | (522) | 1,140 | (5,553) |
| (Decrease) increase in notes and accounts payable - trade | (5,949) | 3,969 | (63,287) |
| Increase (decrease) in other current liabilities | 4,511 | (672) | 47,989 |
| Other - net | 2,169 | 882 | 23,074 |
| Total adjustments | (14,022) | 45,868 | (149,169) |
| Net cash provided by operating activities | 3,680 | 13,851 | 39,150 |
| INVESTING ACTIVITIES: | | | |
| Purchases of marketable securities | (5,502) | (13,113) | (58,531) |
| Proceeds from sales and redemption of marketable securities | 9,510 | 17,019 | 101,170 |
| Purchases of investment securities | (5) | (15,586) | (53) |
| Proceeds from sales and redemption of investment securities | 13,372 | 3,697 | 142,255 |
| Purchases of property, plant and equipment | (31,190) | (27,767) | (331,808) |
| Purchases of intangible assets | (1,085) | (1,435) | (11,542) |
| Decrease (increase) in time deposits | 14,156 | (2,985) | 150,595 |
| Purchase of business | - | - | - |
| Purchase of stocks of a subsidiary | (60) | (5,368) | (638) |
| Other - net | 222 | 100 | 2,361 |
| Net cash used in investing activities | (582) | (45,438) | (6,191) |
| FINANCING ACTIVITIES: | | | |
| (Decrease) increase in short-term borrowings - net | (31) | 726 | (329) |
| Proceeds from long-term debt | 27,077 | 72,777 | 288,053 |
| Repayment of long-term borrowings | (8,000) | (10,000) | (85,107) |
| Cash dividends | (6,530) | (6,530) | (69,468) |
| Other-net | (68) | (365) | (724) |
| Net cash provided by financing activities | 12,448 | 56,608 | 132,425 |
| FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS | 2,898 | (2,904) | 30,829 |
| NET INCREASE IN CASH AND CASH EQUIVALENTS | 18,444 | 22,117 | 196,213 |
| CASH AND CASH EQUIVALENTS OF NEWLY CONSOLIDATED SUBSIDIARIES, BEGINNING OF YEAR | - | 28 | - |
| DECREASE IN CASH AND CASH EQUIVALENTS RESULTING FROM CHANGES IN FISCAL YEAR ENDS OF CONSOLIDATED | (748) | - | (7,957) |
| CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR | 85,149 | 63,004 | 905,840 |
| CASH AND CASH EQUIVALENTS, END OF YEAR | ¥102,845 | ¥ 85,149 | $1,094,096 |

See notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

NGK Insulators, Ltd. and Consolidated Subsidiaries
Year Ended March 31, 2013

## 1. BASIS OF PRESENTATION OF CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in accordance with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. In addition, certain reclassifications have been made in the 2012 consolidated financial statements to conform to the classifications used in 2013.

The consolidated financial statements are stated in Japanese yen, the currency of the country in which NGK INSULATORS, LTD. (the "Company") is incorporated and operates. The translations of Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside Japan and have been made at the rate of ¥94 to $1, the approximate rate of exchange at March 31, 2013. Such translations should not be construed as representations that the Japanese yen amounts could be converted into U.S. dollars at that or any other rate.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

*a.* ***Consolidation***—The consolidated financial statements as of March 31, 2013 include the accounts of the Company and its 54 significant (55 in 2012) subsidiaries (together, the "Group").

Under the control or influence concept, those companies in which the Company, directly or indirectly, is able to exercise control over operations are fully consolidated, and those companies over which the Group has the ability to exercise significant influence are accounted for by the equity method.

Investments in one unconsolidated subsidiary and one associated company are accounted for by the equity method in 2013 and 2012.

Investments in the remaining unconsolidated subsidiaries and associated companies are stated at cost. If the equity method of accounting had been applied to the investments in these companies, the effect on the accompanying consolidated financial statements would not be material.

The excess of the cost of acquisition over the fair value of the net assets of an acquired subsidiary at the date of acquisition is being amortized over a period of five years.

All significant intercompany balances and transactions have been eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Group is also eliminated.

Prior to March 31, 2012, the reporting dates of the financial statements of 28 foreign subsidiaries used in the preparation of the Group's consolidated financial statements were different from the fiscal year end of the group (March 31) and the significant transactions occurring between the reporting dates of those subsidiaries and March 31 were properly adjusted for consolidation purposes. From the current fiscal year, the reporting dates of those subsidiaries were changed to March 31 except for some subsidiaries which retain the different reporting date but prepare additional financial information as of March 31 for consolidation purposes. The effect of the changes was reflected in retained earnings in the consolidated statement of changes in equity.

*b.* ***Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements***—In May 2006, the Accounting Standards Board of Japan (the "ASBJ") issued ASBJ Practical Issues Task Force (PITF) No. 18, "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements." PITF No. 18 prescribes that the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should in principle be unified for the preparation of the consolidated financial statements. However, financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards or the generally accepted accounting principles in the United States of America ("U.S. GAAP") tentatively may be used for the consolidation process, except for the following items that should be adjusted in the consolidation process so that net income is accounted for in accordance with Japanese GAAP, unless they are not material: (a) amortization of goodwill; (b) scheduled amortization of actuarial gain or loss of pensions that has been directly recorded in equity; (c) expensing capitalized development costs of R&D; (d) cancellation of fair value model accounting for property, plant and equipment and investment properties and incorporation of cost model accounting; and (e) exclusion of minority interests from net income, if contained in net income.

*c.* ***Business Combinations***—In October 2003, the Business Accounting Council issued a Statement of Opinion, "Accounting for Business Combinations," and in December 2005, the ASBJ issued ASBJ Statement No. 7, "Accounting Standard for Business Divestitures" and ASBJ Guidance No. 10, "Guidance for Accounting Standard for Business Combinations and Business Divestitures." The accounting standard for business combinations allows companies to apply the pooling-of-interests method of accounting only when certain specific criteria are met such that the business combination is essentially regarded as a uniting of interests. For business combinations that do not meet the uniting-of-interests criteria, the business combination is considered to be an acquisition and the purchase method of accounting is required. This standard also prescribes the accounting for combinations of entities under common control and for joint ventures.

In December 2008, the ASBJ issued a revised accounting standard for business combinations, ASBJ Statement No. 21, "Accounting Standard for Business Combinations." Major accounting changes under the revised accounting standard are as follows: (1) The revised standard requires accounting for business combinations only by the purchase method. As a result, the pooling-of-interests method of accounting is no longer allowed. (2) The previous accounting standard required research and development costs to be charged to income as incurred. Under the revised standard, in-process research and development costs (IPR&D) acquired in the business combination are capitalized as an intangible asset. (3) The previous accounting standard provided for a bargain purchase gain (negative goodwill) to be systematically amortized over a period not exceeding 20 years. Under the revised standard, the acquirer recognizes the bargain purchase gain in profit or loss immediately on the acquisition date after reassessing and confirming that all of the assets acquired and all of the liabilities assumed have been identified after a review of the procedures used in the purchase price allocation. The revised standard was applicable to business combinations undertaken on or after April 1, 2010.

*d.* ***Cash Equivalents***—Cash equivalents are short-term investments that are readily convertible into cash and that are exposed to insignificant risk of changes in value.

Cash equivalents include time deposits, commercial paper, certificates of deposit and investment trusts that represent short-term investments, all of which mature or become due within three months of the date of acquisition.

*e.* ***Inventories***—Inventories are stated at the lower of cost, determined principally by the average method for finished products, work in process and raw materials, or net selling value (See Note 5). Costs of construction in progress are stated at cost, determined by the specific identification method.

*f.* ***Marketable and Investment Securities***—Marketable and investment securities are classified and accounted for, depending on management's intent, as follows: (1) held-to-maturity debt securities, for which there is the positive intent and ability to hold to maturity are reported at amortized cost; and (2) available-for-sale securities, which are not classified as held-to-maturity debt securities, are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported in a separate component of equity.

Nonmarketable available-for-sale securities are stated at cost determined by the moving-average method. For other-than-temporary declines in fair value, investment securities are reduced to net realizable value by a charge to income.

*g.* ***Property, Plant and Equipment***—Property, plant and equipment are stated at cost. Depreciation of property, plant and equipment of the Company and its consolidated domestic subsidiaries is computed by the declining-balance method on the estimated useful lives of the assets, while the straight-line method is applied to all property, plant and equipment of consolidated foreign subsidiaries. The range of useful lives is principally from 15 to 50 years for buildings and structures and from 3 to 12 years for machinery and equipment. The useful lives for lease assets are the terms of the respective leases.

Effective April 1, 2012, the Company and domestic consolidated subsidiaries changed their depreciation method for property and equipment acquired on and after April 1, 2012, in accordance with the change in the method prescribed by the Japanese income tax laws. The effect of this change in the depreciation method on the consolidated statement of income for the year ended March 31, 2013, was immaterial.

*h.* ***Long-Lived Assets***—The Group reviews its long-lived assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable. An impairment loss is recognized if the carrying amount of an asset or asset group exceeds the sum of the undiscounted future cash flows expected to result from the continued use and eventual disposition of the asset or asset group. The impairment loss would be measured as the amount by which the carrying amount of the asset exceeds its recoverable amount, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling price at disposition.

*i.* ***Intangible Assets***—Depreciation is computed by the straight-line method based on the estimated useful lives of the asset. The useful life of software is five years.

*j.* ***Liability (Asset) for Retirement Benefits***—The liability (asset) for retirement benefits is accounted for based on the projected benefit obligations and plan assets at the balance sheet date. Actuarial gains and losses are amortized and charged to expense on a straight-line basis over a certain period (10 years) within the expected average remaining working lives of the employees from the consolidated fiscal year following the year when they occur. Past service costs are amortized and charged to expense on a straight-line basis mainly over a certain period (10 years) within the expected average remaining working lives of the employees.

In some consolidated subsidiaries in the United States, the costs of postretirement benefits other than pension plans are allocated to each period based on the estimated working lives of employees, and are included in liability for retirement benefits because they are similar to retirement benefits. In some consolidated subsidiaries in the United States, actuarial gains and losses are recognized on the balance sheet through "Postretirement benefit liability adjustments of foreign subsidiaries" in other comprehensive income when they occur.

*k.* ***Stock Options***—In December 2005, the ASBJ issued ASBJ Statement No. 8, "Accounting Standard for Stock Options" and related guidance. The new standard and guidance are applicable to stock options newly granted on and after May 1, 2006. This standard requires companies to measure the cost of employee stock options based on the fair value at the date of grant and over the vesting period as consideration for receiving goods or services. The standard also requires companies to account for stock options granted to nonemployees based on the fair value of either the stock option or the goods or services received. In the balance sheet, the stock option is presented as a stock acquisition right as a separate component of equity until exercised. The standard covers equity-settled, share-based payment transactions, but does not cover cash-settled, share-based payment transactions.

*l.* ***Research and Development Costs***—Research and development costs are charged to income as incurred.

*m.* ***Provision for Product Warranties Costs***—The Company and some consolidated subsidiaries estimate and accrue the costs of warranty repair for products sold in reserve for future expenses.

*n.* ***Provision for NAS Battery Safety Measures***—In September 2012, NGK manufactured NAS (sodium-sulfur) batteries used for storing electricity caught fire. The Company, in connection with the fire accident, reserved an allowance as "Provision for NAS battery safety measures" for anticipated future expenses on safety measures necessary to expand NAS battery business, to the extent that such amount can be reasonably estimated.

*o.* ***Leases***—In March 2007, the ASBJ issued ASBJ Statement No. 13, "Accounting Standard for Lease Transactions," which revised the previous accounting standard for lease transactions. The revised accounting standard for lease transactions was effective for fiscal years beginning on or after April 1, 2008.

Under the previous accounting standard, finance leases that were deemed to transfer ownership of the leased property to the lessee were capitalized. However, other finance leases were permitted to be accounted for as operating lease transactions if certain "as if capitalized" information was disclosed in the note to the lessee's financial statements. The revised accounting standard requires that all finance lease transactions be capitalized by recognizing lease assets and lease obligations in the balance sheet. In addition, the accounting standard permits leases which existed at the transition date and do not transfer ownership of the leased property to the lessee to continue to be accounted for as operating lease transactions.

The Company applied the revised accounting standard effective April 1, 2008. In addition, the Company continues to account for leases which existed at the transition date and do not transfer ownership of the leased property to the lessee as operating lease transactions.

All other leases are accounted for as operating leases.

*p.* ***Construction Contracts***—In December 2007, the ASBJ issued ASBJ Statement No. 15, "Accounting Standard for Construction Contracts" and ASBJ Guidance No. 18, "Guidance on Accounting Standard for Construction Contracts." Under this accounting standard, construction revenue and construction costs should be recognized by the percentage-of-completion method if the outcome of a construction contract can be estimated reliably. When total construction revenue, total construction costs and the stage of completion of the contract at the balance sheet date can be reliably measured, the outcome of a construction contract is deemed to be estimated reliably. If the outcome of a construction contract cannot be reliably estimated, the completed-contract method should be applied. When it is probable that the total construction costs will exceed total construction revenue, an estimated loss on the contract should be immediately recognized by providing for a loss on construction contracts.

*q.* ***Income Taxes***—The provision for current income taxes is computed based on the pretax income included in the consolidated statement of operations. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred taxes are measured by applying currently enacted income tax rates to the temporary differences.

r. ***Foreign Currency Transactions***—All short-term and long-term monetary receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rates at the balance sheet date. The foreign exchange gains and losses from translation are recognized in the consolidated statement of operations to the extent that they are not hedged by forward exchange contracts.

s. ***Foreign Currency Financial Statements***—The balance sheet accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the current exchange rate as of the balance sheet date except for equity, which is translated at the historical rate. Differences arising from such translation are shown as "Foreign currency translation adjustments" under accumulated other comprehensive income in a separate component of equity. Revenue and expense accounts of consolidated foreign subsidiaries are translated into yen at the average exchange rate.

t. ***Derivatives and Hedging Activities***—The Group uses derivative financial instruments to manage its exposures to fluctuations in foreign exchange and interest rates. Foreign exchange forward contracts, interest rate and currency swaps and interest rate swaps are utilized by the Group to reduce foreign currency exchange and interest rate risks. The Group does not enter into derivatives for trading or speculative purposes.

Derivative financial instruments and foreign currency transactions are classified and accounted for as follows: (1) all derivatives are recognized as either assets or liabilities and measured at fair value, and gains or losses on derivative transactions are recognized in the consolidated statement of operations and (2) for derivatives used for hedging purposes, if such derivatives qualify for hedge accounting because of high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on derivatives are deferred until maturity of the hedged transactions.

The foreign currency forward contracts employed to hedge foreign exchange exposures for export sales are measured at fair value and the unrealized gains/losses are recognized in income. Forward contracts applied for forecasted (or committed) transactions are also measured at fair value but the unrealized gains/losses are deferred until the underlying transactions are completed.

Receivables or payables denominated in foreign currencies for which foreign exchange forward contracts are used to hedge the foreign currency fluctuations are translated at the contracted rate if the forward contracts qualify for hedge accounting.

Long-term debt denominated in foreign currencies for which currency and interest rate swaps are used to hedge the foreign currency and interest rate fluctuations is also translated at the contracted rate if the forward contracts qualify for hedge accounting.

The interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not remeasured at market value but the differential paid or received under the swap agreements is recognized and included in interest expense or income.

u. ***Per-Share Information***—Basic net income per share is computed by dividing net income available to common shareholders by the weighted-average number of common shares outstanding for the period, retroactively adjusted for stock splits.

Diluted net income per share reflects the potential dilution that could occur if securities were exercised or converted into common stock. Diluted net income per share of common stock assumes full conversion of the outstanding convertible notes and bonds at the beginning of the year (or at the time of issuance) with an applicable adjustment for related interest expense, net of tax, and full exercise of outstanding stock acquisition rights.

Cash dividends per share presented in the accompanying consolidated statement of operations are dividends applicable to the respective years including dividends to be paid after the end of the year.

v. ***Accounting Changes and Error Corrections***—In December 2009, the ASBJ issued ASBJ Statement No. 24, "Accounting Standard for Accounting Changes and Error Corrections" and ASBJ Guidance No. 24, "Guidance on Accounting Standard for Accounting Changes and Error Corrections." Accounting treatments under this standard and guidance are as follows: (1) Changes in Accounting Policies—When a new accounting policy is applied following revision of accounting standards, the new policy is applied retrospectively unless the revised accounting standard includes specific transitional provisions, in which case, the entity shall comply with the specific transitional provisions. (2) Changes in Presentation—When the presentation of financial statements is changed, prior-period financial statements are reclassified in accordance with the new presentation. (3) Changes in Accounting Estimates—A change in an accounting estimate is accounted for in the period of the change if the change affects that period only, and is accounted for prospectively if the change affects both the period of the change and future periods. (4) Corrections of Prior-Period Errors—When an error in prior-period financial statements is discovered, those statements are restated.

**w. *New Accounting Pronouncements***

***Accounting Standard for Retirement Benefits***—On May 17, 2012, the ASBJ issued ASBJ Statement No. 26, "Accounting Standard for Retirement Benefits" and ASBJ Guidance No. 25, "Guidance on Accounting Standard for Retirement Benefits," which replaced the Accounting Standard for Retirement Benefits that had been issued by the Business Accounting Council in 1998 with effective date of April 1, 2000 and the other related practical guidances, and followed by partial amendments from time to time through 2009.

Major changes are as follows:

(*a*) *Treatment in the balance sheet*

Under the current requirements, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss are not recognized in the balance sheet, and the difference between retirement benefit obligations and plan assets (hereinafter, "deficit or surplus"), adjusted by such unrecognized amounts, are recognized as a liability or asset.

Under the revised accounting standard, actuarial gains and losses and past service costs that are yet to be recognized in profit or loss shall be recognized within equity (accumulated other comprehensive income), after adjusting for tax effects, and any resulting deficit or surplus shall be recognized as a liability (liability for retirement benefits) or asset (asset for retirement benefits).

(*b*) *Treatment in the statement of income and the statement of comprehensive income*

The revised accounting standard does not change how to recognize actuarial gains and losses and past service costs in profit or loss. Those amounts would be recognized in profit or loss over a certain period no longer than the expected average remaining working lives of the employees. However, actuarial gains and losses and past service costs that arose in the current period and have not yet been recognized in profit or loss shall be included in other comprehensive income and actuarial gains and losses and past service costs that were recognized in other comprehensive income in prior periods and then recognized in profit or loss in the current period shall be treated as reclassification adjustments.

This accounting standard and the guidance are effective for the end of annual periods beginning on or after April 1, 2013 with earlier application being permitted from the beginning of annual periods beginning on or after April 1, 2013. However, no retrospective application of this accounting standard to consolidated financial statements in prior periods is required.

The Company expects to apply the revised accounting standard above from the end of the annual period beginning on April 1, 2013 and is in the process of measuring the effects of applying the revised accounting standard in future applicable periods.

## 3. ACCOUNTING CHANGE

***Revenue recognition***—Prior to March 31, 2012, the Company and its domestic subsidiaries recognized revenues upon shipment of goods to customers while foreign subsidiaries recognized revenues in accordance with IFRSs or U.S. GAAP, mainly upon delivery of goods to customers. After "Accounting Practice Committee Research Report No. 13 – Research Report on Revenue Recognition in Japan (interim report)" was released by JICPA in July 2009, the Company and its domestic subsidiaries reconsidered the revenue recognition policies and the certainty of transfer of economic benefits and risk to the customers. As a result of the reconsideration, the Company and its domestic subsidiaries changed the policies of revenue recognition, except for construction contract revenues as described in Note 2.p, to unify the policies within the Group and recognize revenues after delivery to customers from April 1, 2012 when the computer system improvement for such recognition had been completed.

This accounting policy change was applied retrospectively and the consolidated financial statements for the year ended March 31, 2012 were restated. The effects of this accounting policy change for 2012 were as follows: (1) Consolidated statement of operations for the year ended March 31, 2012 – “net sales” and “ income before income taxes and minority interests” increased by ¥1,130 million and ¥450 million, respectively. (2) Per Share of Common Stock for the year ended March 31, 2012 – “basic net loss” decreased by ¥0.79. (3) Consolidated Statement of Changes in Equity – “retained earnings” and “minority interest” as of April 1, 2011, decreased by ¥307 million and ¥40 million, respectively.

## 4. MARKETABLE AND INVESTMENT SECURITIES

Marketable and investment securities as of March 31, 2013 and 2012, consisted of the following:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Current: | | | |
| Investment trusts and other | **¥ 3,751** | ¥ 6,320 | **$ 39,904** |
| Debt securities | **13,940** | 11,882 | **148,298** |
| Total | **¥17,691** | ¥18,202 | **$188,202** |
| Noncurrent: | | | |
| Equity securities and other | **¥26,628** | ¥26,598 | **$283,277** |
| Debt securities | **18,452** | 31,633 | **196,297** |
| Total | **¥45,080** | ¥58,231 | **$479,574** |

The costs and aggregate fair values of marketable and investment securities at March 31, 2013 and 2012, were as follows:

| | Millions of Yen | | | |
|---|---|---|---|---|
| **March 31, 2013** | Cost | Unrealized Gains | Unrealized Losses | Fair Value |
| Securities classified as: | | | | |
| Available-for-sale: | | | | |
| Equity securities | **¥13,427** | **¥11,220** | **¥147** | **¥24,500** |
| Investment trusts and other | **3,356** | **454** | **59** | **3,751** |
| Held-to-maturity: | | | | |
| Debt securities | **32,392** | **210** | **201** | **32,401** |

| | Millions of Yen | | | |
|---|---|---|---|---|
| March 31, 2012 | Cost | Unrealized Gains | Unrealized Losses | Fair Value |
| Securities classified as: | | | | |
| Available-for-sale: | | | | |
| Equity securities | ¥17,502 | ¥8,161 | ¥1,190 | ¥24,473 |
| Investment trusts and other | 6,358 | 76 | 114 | 6,320 |
| Held-to-maturity: | | | | |
| Debt securities | 43,516 | 260 | 404 | 43,372 |

| | Thousands of U.S. Dollars | | | |
|---|---|---|---|---|
| **March 31, 2013** | Cost | Unrealized Gains | Unrealized Losses | Fair Value |
| Securities classified as: | | | | |
| Available-for-sale: | | | | |
| Equity securities | **$142,841** | **$119,362** | **$1,564** | **$260,639** |
| Investment trusts and other | **35,702** | **4,830** | **628** | **39,904** |
| Held-to-maturity: | | | | |
| Debt securities | **344,595** | **2,234** | **2,138** | **344,691** |

Available-for-sale securities whose fair values are not readily determinable as of March 31, 2013 and 2012, were as follows:

| | Carrying amount | | |
|---|---|---|---|
| | Millions of Yen | | Thousands of U.S. Dollars |
| | **2013** | 2012 | **2013** |
| Available-for-sale: | | | |
| Equity securities and other | **¥2,128** | ¥2,124 | **$22,638** |
| Total | **¥2,128** | ¥2,124 | **$22,638** |

Proceeds from sales of available-for-sale securities for the years ended March 31, 2013 and 2012 were ¥4,361 million ($46,394 thousand) and ¥517 million, respectively. Gross realized gains and losses on these sales, computed on the moving average cost basis, were ¥1,195 million ($12,712 thousand) and ¥873 million ($9,287 thousand), respectively, for the year ended March 31, 2013 and ¥14 million and ¥32 million, respectively, for the year ended March 31, 2012.

In the current fiscal year, bonds (carrying amount of ¥2,987 million) previously classified as held-to-maturity were reclassified to available-for-sale because the bonds no longer qualified as held-to-maturity due to the fact that the credit status of the issuer was significantly degraded. All of the bonds were sold in the current fiscal year.

Impairment loss on investment securities of ¥3,045 million ($32,393 thousand) and ¥649 million was recognized for the years ended on March 31, 2013 and 2012, respectively.

The carrying values of debt securities and investment trusts and other by contractual maturities for securities classified as available-for-sale and held-to-maturity at March 31, 2013, were as follows:

| | Millions of Yen | | Thousands of U.S. Dollars | |
|---|---|---|---|---|
| | Available-for-Sale | Held-to-Maturity | Available-for-Sale | Held-to-Maturity |
| Due in one year or less | — | **¥13,940** | — | **$148,298** |
| Due after one year through five years | — | **18,452** | — | **196,297** |
| Total | — | **¥32,392** | — | **$344,595** |

## 5. INVENTORIES

Inventories at March 31, 2013 and 2012, consisted of the following:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Finished products | **¥38,612** | ¥31,149 | **$ 410,766** |
| Semifinished products | **10,930** | 9,607 | **116,277** |
| Work in process | **9,149** | 7,841 | **97,330** |
| Raw materials | **19,516** | 15,832 | **207,617** |
| Supplies | **17,261** | 14,799 | **183,627** |
| Cost of contracts in progress | **476** | 642 | **5,064** |
| Total | **¥95,944** | ¥79,870 | **$1,020,681** |

## 6. LONG-LIVED ASSETS

During the year ended March 31, 2013, as a result of changes in the market and business environment in the Insulator Business in China, the Group reviewed its business planning of the two production companies in the country. Consequently, it recognized impairment losses on the plant and property of the companies and goodwill in relation to the business, based on the projection that future profitability will be lower than originally expected. The Group reduced the carrying amounts of the assets to their recoverable values which are determined as fair value less cost to sell, mainly based on estimated fair value. It then recognized a reduction of ¥2,248 million ($23,915 thousand) (¥1,019 million of buildings and structures, ¥1,056 million of machinery and equipment and ¥173 million of goodwill) as impairment loss under extraordinary losses.

## 7. SHORT-TERM BORROWINGS AND LONG-TERM DEBT

Short-term borrowings at March 31, 2013 and 2012, consisted of notes to banks. The weighted-average interest rates on short-term borrowings as of March 31, 2013 and 2012, were 2.8 % and 2.5 %, respectively.

Long-term debt at March 31, 2013 and 2012, consisted of the following:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Borrowings from banks and other financial institutions due serially to 2028 with weighted-average interest rates of 1.3% (2013) and 1.3% (2012) | **¥130,710** | ¥106,701 | **$1,390,532** |
| Unsecured 0.734% yen bonds due December 4, 2014 | **20,000** | 20,000 | **212,766** |
| Total | **150,710** | 126,701 | **1,603,298** |
| Less: portion due within one year | **—** | (8,000) | **—** |
| Long-term debt, less current portion | **¥150,710** | ¥118,701 | **$1,603,298** |

Annual maturities of long-term debt at March 31, 2013, were as follows:

| Year ending March 31 | Millions of Yen | Thousands of U.S. Dollars |
|---|---|---|
| 2014 | — | — |
| 2015 | ¥ 20,391 | $ 216,926 |
| 2016 | 6,270 | 66,702 |
| 2017 | 21,938 | 233,383 |
| 2018 | 6,748 | 71,787 |
| 2019 and thereafter | 95,363 | 1,014,500 |
| Total | ¥150,710 | $1,603,298 |

## 8. LIABILITY FOR RETIREMENT BENEFITS

The Company and certain consolidated subsidiaries have severance payment plans for employees, directors and audit and supervisory board members.

The Company and certain domestic subsidiaries have unfunded retirement plans, contributory pension plans, Smaller Enterprise Retirement Allowance Mutual Aid Plans and Specific Retirement Allowance Mutual Aid Plans. Certain domestic subsidiaries contribute to a multiemployer pension plan.

Certain U.S. subsidiaries have defined benefit plans and defined contribution plans.

The liability for retirement benefits at March 31, 2013 and 2012 for directors and audit and supervisory board members is ¥88 million ($936 thousand) and ¥79 million, respectively. The retirement benefits for directors and audit and supervisory board members are paid subject to the approval of the shareholders.

The liability for employees' retirement benefits, except for the directors and audit and supervisory board members described above, at March 31, 2013 and 2012, consisted of the following:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Projected benefit obligation | **¥ 84,874** | ¥ 78,680 | **$ 902,915** |
| Fair value of plan assets | **(72,599)** | (66,891) | **(772,330)** |
| Unrecognized prior service benefit | **1,602** | 2,135 | **17,043** |
| Unrecognized actuarial loss | **(18,210)** | (17,203) | **(193,723)** |
| Net assets | **(4,333)** | (3,279) | **(46,095)** |
| Prepaid pension cost | **17,469** | 16,946 | **185,840** |
| Other postretirement obligation | **3,031** | 2,798 | **32,245** |
| Amount recognized as liability | **¥ 16,167** | ¥ 16,465 | **$ 171,990** |

The components of net periodic benefit costs for the years ended March 31, 2013 and 2012, were as follows:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Service cost | **¥ 2,635** | ¥ 2,631 | **$ 28,032** |
| Interest cost | **1,744** | 1,644 | **18,553** |
| Expected return on plan assets | **(1,468)** | (1,454) | **(15,617)** |
| Amortization of prior service benefit | **(527)** | (524) | **(5,606)** |
| Recognized actuarial loss | **2,324** | 2,684 | **24,723** |
| Other | **8** | 21 | **85** |
| Net periodic benefit costs | **¥ 4,716** | ¥ 5,002 | **$ 50,170** |

Assumptions used for the years ended March 31, 2013 and 2012, were set forth as follows:

| | **2013** | 2012 |
|---|---|---|
| Discount rate | **Primarily 1.5%** | Primarily 2.0% |
| Expected rate of return on plan assets | **Primarily 1.8%** | Primarily 1.8% |
| Amortization period of prior service cost / benefit | **Primarily 10 years** | Primarily 10 years |
| Recognition period of actuarial gain / loss | **Primarily 10 years** | Primarily 10 years |

Funded status of the multiemployer pension plan at March 31, 2012 and 2011 (available information as of March 31, 2013 and 2012), to which contributions were recorded as net periodic retirement benefit costs, was as follows:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Fair value of plan assets | **¥ 254,798** | ¥ 258,978 | **$ 2,710,617** |
| Pension benefit obligation recorded by pension fund | **(299,366)** | (300,200) | **(3,184,745)** |
| Difference | **¥ (44,568)** | ¥ (41,222) | **$ (474,128)** |

The Group's contribution percentage for the multiemployer pension plan is 1.8%

Notes 1. The difference mainly resulted from a deficit recorded by the pension fund of ¥42,914 million ($456,532 thousand).
2. Prior service cost is amortized over 20 years.

## 9. EQUITY

Japanese companies are subject to the Companies Act. The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

### a. *Dividends*

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. For companies that meet certain criteria such as (1) having a Board of Directors, (2) having independent auditors, (3) having an Audit and Supervisory Board, and (4) the term of service of the directors is prescribed as one year rather than two years of normal term by its articles of incorporation, the Board of Directors may declare dividends (except for dividends in kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. However, the Company cannot do so because it does not meet all the above criteria.

Semiannual interim dividends may also be paid once a year upon resolution by the Board of Directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

### b. *Increases/Decreases and Transfer of Common Stock, Reserve and Surplus*

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus), depending on the equity account charged upon the payment of such dividends, until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts under certain conditions upon resolution of the shareholders.

### c. *Treasury Stock and Treasury Stock Acquisition Rights*

The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the Board of Directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders, which is determined by specific formula. Under the Companies Act, stock acquisition rights are presented as a separate component of equity. The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

## 10. STOCK OPTIONS

The stock options outstanding as of March 31, 2013, were as follows:

| Stock Option Schemes | Persons Originally Granted | Number of Options Originally Granted | Date of Grant | Exercise Price | Exercise Period |
|---|---|---|---|---|---|
| 2005 Stock Option Scheme | 12 directors<br>2 full-time audit and supervisory board members<br>10 officers | Common shares<br>180,000 shares | August 5, 2005 | ¥1<br>($0.01) | From August 5, 2005<br>To June 30, 2035 |
| 2006 Stock Option Scheme (2-1) | 12 directors<br>2 full-time audit and supervisory board members | Common shares<br>113,000 shares | August 11, 2006 | ¥1<br>($0.01) | From August 12, 2006<br>To June 30, 2036 |
| 2006 Stock Option Scheme (2-2) | 10 officers | Common shares<br>41,000 shares | August 11, 2006 | ¥1<br>($0.01) | From August 12, 2006<br>To June 30, 2036 |
| 2007 Stock Option Scheme | 12 directors<br>10 officers | Common shares<br>62,000 shares | August 30, 2007 | ¥1<br>($0.01) | From August 31, 2007<br>To June 30, 2037 |
| 2008 Stock Option Scheme | 11 directors<br>9 officers | Common shares<br>57,000 shares | August 13, 2008 | ¥1<br>($0.01) | From August 14, 2008<br>To June 30, 2038 |
| 2009 Stock Option Scheme | 12 directors<br>10 officers | Common shares<br>62,000 shares | August 17, 2009 | ¥1<br>($0.01) | From August 18, 2009<br>To June 30, 2039 |
| 2010 Stock Option Scheme | 12 directors<br>11 officers | Common shares<br>64,000 shares | August 16, 2010 | ¥1<br>($0.01) | From August 17, 2010<br>To June 30, 2040 |
| 2011 Stock Option Scheme | 11 directors<br>11 officers | Common shares<br>62,000 shares | August 15, 2011 | ¥1<br>($0.01) | From August 16, 2011<br>To June 30, 2041 |
| 2012 Stock Option Scheme | 10 directors<br>14 officers | Common shares<br>66,000 shares | August 15, 2012 | ¥1<br>($0.01) | From August 16, 2012<br>To June 30, 2042 |

The stock option activity is as follows:

| | Shares | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2005 Stock Option | 2006 Stock Option (2-1) | 2006 Stock Option (2-2) | 2007 Stock Option | 2008 Stock Option | 2009 Stock Option | 2010 Stock Option | 2011 Stock Option | 2012 Stock Option |
| For the year ended March 31, 2012 | | | | | | | | | |
| **Non-vested** | | | | | | | | | |
| April 1, 2011—Outstanding | — | — | — | — | — | — | — | — | — |
| Granted | — | — | — | — | — | — | — | 62,000 | — |
| Canceled | — | — | — | — | — | — | — | — | — |
| Vested | — | — | — | — | — | — | — | (62,000) | — |
| March 31, 2012—Outstanding | — | — | — | — | — | — | — | — | — |
| **Vested** | | | | | | | | | |
| April 1, 2011—Outstanding | 135,000 | 93,000 | 33,000 | 59,000 | 57,000 | 62,000 | 64,000 | — | — |
| Vested | — | — | — | — | — | — | — | 62,000 | — |
| Exercised | (6,000) | — | (5,000) | (4,000) | (2,000) | — | — | — | — |
| Canceled | — | — | — | — | — | — | — | — | — |
| March 31, 2012—Outstanding | 129,000 | 93,000 | 28,000 | 55,000 | 55,000 | 62,000 | 64,000 | 62,000 | — |

| | Shares | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2005 Stock Option | 2006 Stock Option (2-1) | 2006 Stock Option (2-2) | 2007 Stock Option | 2008 Stock Option | 2009 Stock Option | 2010 Stock Option | 2011 Stock Option | 2012 Stock Option |
| **For the year ended March 31, 2013** | | | | | | | | | |
| **Non-vested** | | | | | | | | | |
| April 1, 2012—Outstanding | — | — | — | — | — | — | — | — | — |
| Granted | — | — | — | — | — | — | — | — | 66,000 |
| Canceled | — | — | — | — | — | — | — | — | — |
| Vested | — | — | — | — | — | — | — | — | (66,000) |
| March 31, 2013—Outstanding | — | — | — | — | — | — | — | — | — |
| **Vested** | | | | | | | | | |
| March 31, 2012—Outstanding | 129,000 | 93,000 | 28,000 | 55,000 | 55,000 | 62,000 | 64,000 | 62,000 | — |
| Vested | — | — | — | — | — | — | — | — | 66,000 |
| Exercised | (22,000) | (22,000) | — | (8,000) | — | — | — | — | — |
| Canceled | — | — | — | — | — | — | — | — | — |
| March 31, 2013—Outstanding | 107,000 | 71,000 | 28,000 | 47,000 | 55,000 | 62,000 | 64,000 | 62,000 | 66,000 |
| Exercise price | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) | ¥1<br>($0.01) |
| Average stock price at exercise | ¥849<br>($9) | ¥838<br>($9) | N/A | ¥838<br>($9) | N/A | N/A | N/A | N/A | N/A |
| Fair value price at grant date | — | ¥1,506<br>($16.02) | ¥1,506<br>($16.02) | ¥3,658<br>($38.91) | ¥1,434<br>($15.25) | ¥2,072<br>($22.04) | ¥1,289<br>($13.71) | ¥1,100<br>($11.70) | ¥923<br>($9.82) |

<u>The Assumptions Used to Measure the Fair Value of the 2013 Stock Option</u>

| | |
|---|---|
| Estimate method: | Black-Scholes option-pricing model |
| Volatility of stock price: | 50.54% |
| Estimated remaining outstanding period: | Four-and-a-half years |
| Estimated dividend: | ¥20 per share |
| Risk-free interest rate: | 0.22% |

## 11. INCOME TAXES

The Company and its domestic subsidiaries are subject to Japanese national and local income taxes which, in the aggregate, resulted in a normal effective statutory tax rate of approximately 37.8% and 40.5% for the years ended March 31, 2013 and 2012, respectively.

The tax effects of significant temporary differences and tax loss carryforwards which resulted in deferred tax assets and liabilities at March 31, 2013 and 2012, were as follows:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Deferred tax assets: | | | |
| Inventories | **¥ 11,166** | ¥ 9,438 | **$ 118,787** |
| Allowance for bad debt | **117** | 125 | **1,245** |
| Accounts payable and accrued expenses | **3,260** | 3,259 | **34,680** |
| Property, plant and equipment | **7,222** | 5,328 | **76,830** |
| Pension and severance costs | **5,831** | 6,241 | **62,032** |
| Tax loss carryforwards | **10,781** | 3,499 | **114,691** |
| Investment securities | **1,361** | 284 | **14,479** |
| Tax deduction of a foreign subsidiary | **2,630** | 1,777 | **27,979** |
| Provision for NAS battery safety measures | **7,865** | 15,986 | **83,670** |
| Other | **1,427** | 2,684 | **15,181** |
| Total | **51,660** | 48,621 | **549,574** |
| Less: valuation allowance | **(18,664)** | (15,205) | **(198,553)** |
| Offset with deferred tax liabilities | **(14,477)** | (7,955) | **(154,011)** |
| Net deferred tax assets | **¥ 18,519** | ¥ 25,461 | **$ 197,010** |
| Deferred tax liabilities: | | | |
| Unrealized gain on available-for-sale securities | **¥ 3,328** | ¥ 2,426 | **$ 35,404** |
| Deferred gains on sales of property | **1,385** | 1,550 | **14,734** |
| Undistributed earnings of foreign subsidiaries | **4,534** | 3,353 | **48,234** |
| Fixed assets | **1,007** | 535 | **10,713** |
| Prepaid pension cost | **6,319** | 6,345 | **67,223** |
| Other | **736** | 627 | **7,830** |
| Total | **17,309** | 14,836 | **184,138** |
| Offset with deferred tax assets | **(14,477)** | (7,955) | **(154,011)** |
| Net deferred tax liabilities | **¥ 2,832** | ¥ 6,881 | **$ 30,127** |

A reconciliation between the normal effective statutory tax rates and the actual effective tax rates reflected in the accompanying consolidated statements of income (operations) for the years ended March 31, 2013 and 2012, was as follows:

| | **2013** | 2012 |
|---|---|---|
| Normal effective statutory tax rate | 37.8 % | Omitting note because of loss before income taxes and minority interests |
| Expenses not deductible for income tax purposes | 3.4 | |
| Income excluded from income tax such as dividends received | (1.2) | |
| Increase in valuation allowance | 5.4 | |
| Undistributed earnings of foreign subsidiaries | 4.4 | |
| Effect of special corporate tax | 4.9 | |
| Lower income tax rates applicable to income in certain foreign countries | (6.5) | |
| Tax credit of foreign subsidiaries | (8.9) | |
| Equity in earnings of unconsolidated subsidiaries and associated companies | (5.1) | |
| Other - net | (0.5) | |
| Actual effective tax rate | 33.7 % | |

## 12. RESEARCH AND DEVELOPMENT COSTS

Research and development costs were ¥11,316 million ($120,383 thousand) and ¥11,428 million for the years ended March 31, 2013 and 2012, respectively, which included consigned research costs of ¥888 million ($9,446 thousand) and ¥896 million for the years ended March 31, 2013 and 2012, respectively.

## 13. LEASES

The minimum rental commitments under noncancellable operating leases at March 31, 2013, were as follows:

| | Millions of Yen | Thousands of U.S. Dollars |
|---|---|---|
| Due within one year | ¥ 356 | $ 3,787 |
| Due after one year | 690 | 7,340 |
| Total | ¥1,046 | $11,127 |

## 14. FINANCIAL INSTRUMENTS AND RELATED DISCLOSURES

(1) Group policy for financial instruments

The Group finances funds by borrowings from banks or other financial institutions and the issuance of corporate bonds. Temporary excess funds are invested mainly in low-risk financial assets. Group policy for using derivatives is not for speculation, but for hedging the risks from operating receivables, payables and borrowings.

(2) Nature and extent of risks arising from financial instruments and risk management for financial instruments

The credit risks from receivables, such as trade notes and trade accounts are managed by each business unit according to the characteristics of the customers. Although receivables in foreign currencies are exposed to the market risk of fluctuation in foreign currency exchange rates, a certain percentage of the position, net of payables in foreign currencies, is hedged by using forward foreign currency contracts.

Marketable and investment securities, which consist mainly of held-to-maturity bonds and the capital stocks of customers or suppliers, are exposed to market risk; however, the risk is insignificant with respect to the bonds. To manage the risk, the market price and the financial position of the issuers are reviewed constantly. Moreover, with respect to those other than held-to-maturity, the portfolio is constantly reviewed considering market circumstances and relationships with the issuers.

Payment terms of nearly all trade payables, including notes and accounts, are less than four months.

The borrowings from banks and other financial institutions and debenture bonds are principally raised for capital investment, and their maximum maturities do not exceed 14 years and 11 months after the balance sheet date. All such long-term debts carry fixed interest rates. However, a part of such fixed rates is converted to floating rates by using interest-rate swap derivatives and are exposed to the market risks of rising interest rates.

Derivatives consist of forward currency contracts, which are for hedging currency risks from the trade receivables and payables denominated in foreign currencies, currency swaps, which are for hedging foreign exchange risks from the borrowings denominated in foreign currencies, and interest rate swaps, which are for reducing cash outflow from interest payments of borrowings. The Company's management believes that the credit risks from those transactions are not significant because the transactions are entered into only with highly rated financial institutions. Derivative transactions are strictly managed complying with internal policies for approval and reporting. For more detail about hedge accounting, including hedging instruments, hedged items, hedge policies and hedge effectiveness, please see Note 2.t.

(3) Supplemental remarks on fair values of financial instruments

The contract or notional amounts of derivatives which are shown in Note 15 do not represent the amounts exchanged by the parties and do not measure the Group's exposure to credit or market risk.

(a) Fair values of financial instruments

| | Millions of yen | | |
|---|---|---|---|
| **March 31, 2013** | Carrying amount | Fair value | Unrealized gain/loss |
| Cash and cash equivalents | ¥ 102,845 | ¥ 102,845 | — |
| Time deposits | 742 | 742 | — |
| Notes and accounts receivable: | | | |
| Trade notes and accounts | 57,654 | 57,592 | ¥ (62) |
| Marketable and investment securities | 60,643 | 60,652 | 9 |
| Notes and accounts payable: | | | |
| Trade notes and accounts | (24,998) | (24,998) | — |
| Short-term borrowings | (3,106) | (3,106) | — |
| Income taxes payable | (1,462) | (1,462) | — |
| Long-term debt | (150,710) | (148,309) | 2,401 |
| Derivatives | 20 | 20 | — |

| | Millions of yen | | |
|---|---|---|---|
| March 31, 2012 | Carrying amount | Fair value | Unrealized gain/loss |
| Cash and cash equivalents | ¥ 85,149 | ¥ 85,149 | — |
| Time deposits | 12,776 | 12,776 | — |
| Notes and accounts receivable: | | | |
| Trade notes and accounts | 53,492 | 53,461 | ¥ (31) |
| Marketable and investment securities | 74,309 | 74,165 | (144) |
| Notes and accounts payable: | | | |
| Trade notes and accounts | (24,192) | (24,192) | — |
| Short-term borrowings | (2,924) | (2,924) | — |
| Current portion of long-term debt | (8,000) | (8,000) | — |
| Income taxes payable | (3,835) | (3,835) | — |
| Long-term debt | (118,701) | (118,643) | 58 |
| Derivatives | (360) | (360) | — |

| | Thousands of U.S. Dollars | | |
|---|---|---|---|
| **March 31, 2013** | Carrying amount | Fair value | Unrealized gain/loss |
| Cash and cash equivalents | **$ 1,094,096** | **$ 1,094,096** | — |
| Time deposits | **7,894** | **7,894** | — |
| Notes and accounts receivable: | | | |
| Trade notes and accounts | **613,340** | **612,680** | **$ (660)** |
| Marketable and investment securities | **645,138** | **645,234** | **96** |
| Notes and accounts payable: | | | |
| Trade notes and accounts | **(265,936)** | **(265,936)** | **—** |
| Short-term borrowings | **(33,043)** | **(33,043)** | **—** |
| Income taxes payable | **(15,553)** | **(15,553)** | **—** |
| Long-term debt | **(1,603,298)** | **(1,577,755)** | **25,543** |
| Derivatives | **213** | **213** | **—** |

*Cash and cash equivalents, and time deposits*

The carrying values of cash and cash equivalents, and time deposits approximate fair value because of their short maturities.

*Notes and accounts receivable*

The fair values of the major part of receivables are measured at the amount to be received because of their short maturities while those of some receivables are measured at the amount to be received at maturity discounted at the Group's assumed discount rate determined considering credit risks.

*Marketable and investment securities*

The fair values of marketable and investment securities are measured at the quoted market price of the stock exchange for the equity instruments, and at the quoted price obtained from the financial institution for certain debt instruments. The information of the fair value for the marketable and investment securities by classification is included in Note 4.

*Notes and accounts payable, short-term borrowings, current portion of long-term debt and income taxes payable*

The carrying values of these financial instruments approximate fair value because of their short maturities.

*Long-term debt*

The fair values of long-term debt are determined by discounting the cash flows related to the debt at the Group's assumed corporate borrowing rate.

The long-term loan payables with floating interest rates and hedged with interest rate swaps are accounted for together with the hedging swaps, and the fair value of such loan payables are measured by discounting the total cash flows from the payables and hedging swaps at the Group's assumed corporate borrowing rate.

*Derivatives*

The information of the fair value for derivatives is included in Note 15.

(b) Financial instruments whose fair values cannot be reliably determined

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Investments in equity instruments that do not have a quoted market price in an active market | | | |
| Stock of affiliated companies | **¥21,045** | ¥19,631 | **$223,883** |
| Other | **2,128** | 2,125 | **22,638** |

(4) Maturity analysis for financial assets and securities with contractual maturities

| | Millions of Yen | | | |
|---|---|---|---|---|
| **March 31, 2013** | Due in one year or less | Due after one year through five years | Due after five years through ten years | Due after ten years |
| Cash and cash equivalents | **¥102,845** | — | — | — |
| Notes and accounts receivable: | | | | |
| Trade notes and accounts | **57,103** | **¥ 551** | — | — |
| Held-to-maturity securities | | | | |
| Debt securities | **13,940** | **18,451** | — | — |

| | Thousands of U.S. Dollars | | | |
|---|---|---|---|---|
| **March 31, 2013** | Due in one year or less | Due after one year through five years | Due after five years through ten years | Due after ten years |
| Cash and cash equivalents | **$1,094,096** | — | — | — |
| Notes and accounts receivable: | | | | |
| Trade notes and accounts | **607,478** | **$ 5,862** | — | — |
| Held-to-maturity securities | | | | |
| Debt securities | **148,298** | **196,287** | — | — |

Please see Note 7 for annual maturities of long-term debt.

## 15. DERIVATIVES

The Group enters into derivative financial instruments ("derivatives"), including foreign exchange forward contracts, currency swap and interest rate swap contracts. The foreign exchange forward contracts are entered into in order to hedge foreign exchange risk associated with certain assets and liabilities denominated in foreign currencies. The currency swap contracts are entered into as a means of managing interest rate risk and foreign exchange risk for loans denominated in foreign currencies. The interest rate swap contracts are entered into as a means of managing the interest rate risk for loans from financial institutions. The Group does not hold or issue derivatives for trading or speculative purposes.

Because the counterparties to these derivatives are limited to major international financial institutions, the Group does not anticipate any losses arising from credit risk.

Derivative transactions entered into by the Group have been made in accordance with internal policies which require approval and reporting of all derivative transactions.

Derivative transactions to which hedge accounting is not applied at March 31, 2013 and 2012, were as follows:

| | Millions of Yen | | | |
|---|---|---|---|---|
| **At March 31, 2013** | Contract Amount | Contract Amount Due After One Year | Fair Value | Unrealized Gain/Loss |
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | **¥13,966** | — | **¥14,143** | **¥(177)** |
| Selling euro | **3,137** | — | **3,016** | **121** |
| Buying U.S.$ | **1,015** | — | **1,060** | **45** |
| Buying euro | **106** | — | **105** | **(1)** |
| Buying Japanese yen | **13** | — | **11** | **(2)** |
| Total | **¥18,237** | — | **¥18,335** | **¥ (14)** |

| At March 31, 2012 | Millions of Yen<br>Contract Amount | Contract Amount Due After One Year | Fair Value | Unrealized Gain/Loss |
|---|---|---|---|---|
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | ¥12,788 | — | ¥13,172 | ¥(384) |
| Selling euro | 4,355 | — | 4,382 | (27) |
| Buying U.S.$ | 77 | — | 77 | (0) |
| Buying euro | 219 | — | 219 | 0 |
| Buying Japanese yen | 17,439 | — | 17,850 | (411) |
| Total | ¥12,788 | — | ¥13,172 | ¥(384) |

| **At March 31, 2013** | Thousands of U.S. Dollars<br>Contract Amount | Contract Amount Due After One Year | Fair Value | Unrealized Gain/Loss |
|---|---|---|---|---|
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | **$148,574** | **—** | **$150,457** | **$(1,883)** |
| Selling euro | **33,372** | **—** | **32,085** | **1,287** |
| Buying U.S.$ | **10,798** | **—** | **11,277** | **479** |
| Buying euro | **1,128** | **—** | **1,117** | **(11)** |
| Buying Japanese yen | **138** | **—** | **117** | **(21)** |
| Total | **$194,010** | **—** | **$195,053** | **$ (149)** |

The fair value of derivative transactions is measured at the quoted price obtained from the financial institutions.

Derivative transactions to which hedge accounting is applied at March 31, 2013 and 2012, were as follows:

| **At March 31, 2013** | Hedged Item | Millions of Yen<br>Contract Amount | Contract Amount Due After One Year | Fair Value |
|---|---|---|---|---|
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | Receivables | **¥28** | **—** | **—** |
| Total | | **¥28** | **—** | **—** |

| At March 31, 2012 | Hedged Item | Millions of Yen<br>Contract Amount | Contract Amount Due After One Year | Fair Value |
|---|---|---|---|---|
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | Receivables | ¥32 | — | — |
| Total | | ¥32 | — | — |

| **At March 31, 2013** | Hedged Item | Thousands of U.S. Dollars<br>Contract Amount | Contract Amount Due After One Year | Fair Value |
|---|---|---|---|---|
| Foreign currency forward contracts: | | | | |
| Selling U.S.$ | Receivables | **$298** | **—** | **—** |
| Total | | **$298** | **—** | **—** |

The fair value of derivative transactions is measured at the quoted price obtained from the financial institutions.

The contract or notional amounts of derivatives which are shown in the above table do not represent the amounts exchanged by the parties and do not measure the Group's exposure to credit or market risk.

Forward exchange contracted amounts, which are assigned to associated assets or liabilities and are reflected on the balance sheet at year-end, are not subject to the disclosure of market value information.

| At March 31, 2013 | Hedged Item | Millions of Yen<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate swaps: | | | | |
| (floating rate payment, fixed-rate receipt) | Long-term debt | **¥ 1,000** | **¥ 1,000** | **¥34** |
| Interest rate swaps: | | | | |
| (fixed-rate payment, floating rate receipt) * | Long-term debt | **39,011** | **39,011** | **—** |
| Total | | **¥40,011** | **¥40,011** | **¥34** |

| At March 31, 2012 | Hedged Item | Millions of Yen<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate swaps: | | | | |
| (floating rate payment, fixed-rate receipt) | Long-term debt | ¥ 2,000 | ¥ 1,000 | ¥51 |
| Interest rate swaps: | | | | |
| (fixed-rate payment, floating rate receipt) * | Long-term debt | 46,003 | 38,003 | — |
| Total | | ¥48,003 | ¥39,003 | ¥51 |

| At March 31, 2013 | Hedged Item | Thousands of U.S. Dollars<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate swaps: | | | | |
| (floating rate payment, fixed-rate receipt) | Long-term debt | **$ 10,638** | **$ 10,638** | **$362** |
| Interest rate swaps: | | | | |
| (fixed-rate payment, floating rate receipt) * | Long-term debt | **415,011** | **415,011** | **—** |
| Total | | **$425,649** | **$425,649** | **$362** |

* The above interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not premeasured at market value but the differential paid or received under the swap agreements is recognized and included in interest expense or income. In addition, the fair value of such interest rate swaps is included in that of hedged items (i.e., long-term debt) in Note 14.

| At March 31, 2013 | Hedged Item | Millions of Yen<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate and currency swaps: | | | | |
| (fixed-rate payment, floating rate receipt) | Long-term debt | | | |
| (Japanese yen payment, U.S.$ receipt) | | **¥10,000** | **¥10,000** | — |
| Total | | **¥10,000** | **¥10,000** | — |

| At March 31, 2012 | Hedged Item | Millions of Yen<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate and currency swaps: | | | | |
| (fixed-rate payment, floating rate receipt) | Long-term debt | | | |
| (Japanese yen payment, U.S.$ receipt) | | ¥10,000 | ¥10,000 | — |
| Total | | ¥10,000 | ¥10,000 | — |

| At March 31, 2013 | Hedged Item | Thousands of U.S. Dollars<br>Contract Amount | <br>Contract Amount Due After One Year | <br>Fair Value |
|---|---|---|---|---|
| Interest rate and currency swaps: | | | | |
| (fixed-rate payment, floating rate receipt) | Long-term debt | | | |
| (Japanese yen payment, U.S.$ receipt) | | **$106,383** | **$106,383** | **—** |
| Total | | **$106,383** | **$106,383** | **—** |

* The above interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not premeasured at market value but the differential paid or received under the swap agreements is recognized and included in interest expense or income. In addition, the fair value of such interest rate swaps is included in that of hedged items (i.e., long-term debt) in Note 14.

## 16. CONTINGENT LIABILITIES

At March 31, 2013, the Group had contingent liabilities as follows:

| | Millions of Yen | Thousands of U.S. Dollars |
|---|---|---|
| Guarantees for bank borrowings of employees | **¥ 68** | **$ 723** |
| Guarantees for bank borrowings of a business-related company | **257** | **2,734** |

## 17. COMPREHENSIVE INCOME

The components of other comprehensive income for the years ended March 31, 2013 and 2012, were as follows:

| | Millions of Yen | | Thousands of U.S. Dollars |
|---|---|---|---|
| | **2013** | 2012 | **2013** |
| Unrealized gain (loss) on available-for-sale securities: | | | |
| Gains (losses) arising during the year | **¥ 1,817** | ¥(2,016) | **$ 19,330** |
| Reclassification adjustments to profit or loss | **2,722** | 666 | **28,957** |
| Amount before income tax effect | **4,539** | (1,350) | **48,287** |
| Income tax effect | **(1,047)** | 948 | **(11,138)** |
| Total | **¥ 3,492** | ¥ (402) | **$ 37,149** |
| Deferred gain on derivatives under hedge accounting: | | | |
| Gains arising during the year | **¥ 4** | ¥ 127 | **$ 43** |
| Reclassification adjustments to profit or loss | **(22)** | (121) | **(234)** |
| Amount before income tax effect | **(18)** | 6 | **(191)** |
| Income tax effect | **6** | 0 | **63** |
| Total | **¥(12)** | ¥ 6 | **$(128)** |
| Foreign currency translation adjustments: | | | |
| Adjustments arising during the year | **¥27,203** | ¥(10,537) | **$289,393** |
| Reclassification adjustments to profit or loss | **—** | 344 | **—** |
| Total | **¥27,203** | ¥(10,193) | **$289,393** |
| Share of other comprehensive income in associates— | | | |
| Gains (losses) arising during the year | **¥1** | ¥(2) | **$11** |
| Postretirement benefit liability adjustments of foreign subsidiaries: | | | |
| Losses arising during the year | **¥(262)** | ¥(744) | **$(2,787)** |
| Reclassification adjustments to profit or loss | **154** | 124 | **1,638** |
| Amount before income tax effect | **(108)** | (620) | **(1,149)** |
| Income tax effect | **18** | 239 | **192** |
| Total | **¥ (90)** | ¥(381) | **$ (957)** |
| Total other comprehensive income | **¥30,594** | ¥(10,972) | **$325,468** |

## 18. NET INCOME PER SHARE

Reconciliation of the differences between basic and diluted net income per share ("EPS") for the years ended March 31, 2013 and 2012, was as follows:

| | Millions of Yen | Thousands of Shares | Yen | U.S. Dollars |
|---|---|---|---|---|
| **Year Ended March 31, 2013** | Net Income (Loss) | Weighted-Average Shares | EPS | |
| Basic EPS—Net income available to common shareholders | **¥11,422** | **326,531** | **¥34.98** | **$0.372** |
| Effect of dilutive securities: | | | | |
| Stock options | **—** | **562** | | |
| Diluted EPS—Net income for computation | **¥11,422** | **327,093** | **¥34.92** | **$0.371** |
| Year Ended March 31, 2012 | | | | |
| Basic EPS—Net loss available to common shareholders | ¥(35,351) | 326,517 | ¥(108.27) | |

Note: Diluted net income per share is not disclosed for the year ended March 31, 2012 because it is antidilutive due to the Company's net loss position.

## 19. RELATED-PARTY DISCLOSURES

Transactions with related parties for the year ended March 31, 2013, were as follows:

| Category | Company name | Address | Capital | Content of business | Ratio of voting rights | Relationships | Summary of transactions | Amount | Account items | Balance at the end of fiscal year |
|---|---|---|---|---|---|---|---|---|---|---|
| Company owned by the directors and their close relative holding the majority of ratio of voting rights (including its subsidiaries) | Yoshimura Sangyo Kabushiki Kaisya | Ena-shi, Gifu-ken | ¥10 million ($106 thousand) | Manufacture of clay for ceramics | (Held) Direct 0.0% | Purchase of raw materials | Purchase of clay / silica sand | ¥145 million ($1,543 thousand) | Notes and accounts payable | ¥13 million ($138 thousand) |

Notes 1. The above "Amount" does not include consumption tax; the balance includes consumption tax.
2. Transaction terms and policy for determining transaction terms Transactions stated above were determined through negotiations with reference to the prevailing market price.

## 20. SUBSEQUENT EVENTS

***Appropriations of Retained Earnings***

The following appropriation of retained earnings at March 31, 2013, was approved at the Company's shareholders' meeting held on June 27, 2013:

| | Millions of Yen | Thousands of U.S. Dollars |
|---|---|---|
| Year-end cash dividends, ¥10 ($0.11) per share | ¥3,265 | $34,734 |

## 21. SEGMENT INFORMATION

Under ASBJ Statement No. 17, "Accounting Standard for Segment Information Disclosures" and ASBJ Guidance No. 20, "Guidance on Accounting Standard for Segment Information Disclosures," an entity is required to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria. Operating segments are components of an entity about which separate financial information is available and such information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Generally, segment information is required to be reported on the same basis as is used internally for evaluating operating segment performance and deciding how to allocate resources to operating segments.

### (1) *Description of Reportable Segments*

The Group's reportable segments are components of the Group about which separate financial information is available that is evaluated regularly by the Company's management in deciding how to allocate resources and in assessing performance. The Group develops and conducts its operations under three business groups, the Power Business Group, Ceramics Products Business Group and Electronics Business Group, while planning a comprehensive strategy for domestic and overseas markets. Consequently, the Group defines those three business groups as its reportable segments.

| Business segment | Main products |
|---|---|
| Power | Insulators, hardware for insulator assemblies, current limiting arching horns, bushing shells, fuse cut-outs, APMs, line arresters and NAS (sodium sulfur) batteries |
| Ceramics products | Automotive ceramics for exhaust gas purification, corrosion-resistant ceramic apparatuses for chemical industries, gas analyzers, industrial heating systems, refractory products and radioactive waste treatment systems |
| Electronics | Beryllium-copper-wrought products, molds and ceramic components for electronics and semiconductor manufacturing equipment |

### (2) *Methods of Measurement for the Amounts of Sales, Profit (Loss), Assets and Other Items for Each Reportable Segment*

The accounting policies of each reportable segment are consistent with those disclosed in Note 2, "SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES."

As stated in Note 3, effective April 1, 2012, the Company and its domestic subsidiaries changed the revenue recognition policies. This accounting policy change was applied retrospectively and the consolidated financial statements for the year ended March 31, 2012, were restated. The effects of this accounting policy change for 2012 were as follows:

1) Sales of Power increased by ¥841 million and segment loss of Power decreased by ¥430 million.
2) Sales of Ceramics increased by ¥314 million and segment profit of Ceramics decreased by ¥21 million.
3) Sales of Electronics decreased by ¥25 million and segment profit of Electronics increased by ¥41 million.

## (3) *Information about Sales, Profit (Loss), Assets and Other Items*

| | Millions of Yen | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **2013** | | | | | | | |
| | Reportable segment | | | | | | | |
| | Power | Ceramics | Electronics | Total | Other | Total | Reconciliations | Consolidated |
| Sales | | | | | | | | |
| Sales to customers | **¥57,730** | **¥143,972** | **¥51,087** | **¥252,789** | **—** | **¥252,789** | **—** | **¥252,789** |
| Intersegment sales or transfers | **35** | **137** | **—** | **172** | **—** | **172** | **¥ (172)** | **—** |
| Total | **57,765** | **144,109** | **51,087** | **252,961** | **—** | **252,961** | **(172)** | **252,789** |
| Segment (loss) profit | **(5,729)** | **25,984** | **441** | **20,696** | **—** | **20,696** | **—** | **20,696** |
| Segment assets | **87,680** | **230,011** | **68,638** | **386,329** | **¥224,361** | **610,690** | **(47,660)** | **563,030** |
| Other: | | | | | | | | |
| Depreciation and amortization | **4,759** | **11,749** | **3,581** | **20,089** | **—** | **20,089** | **—** | **20,089** |
| Impairment losses on assets | **2,248** | **—** | **—** | **2,248** | | **2,248** | | **2,248** |
| Increase in property, plant and equipment and intangible assets | **2,747** | **24,109** | **2,327** | **29,183** | **2,033** | **31,216** | **—** | **31,216** |

| | Millions of Yen | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2012 | | | | | | | |
| | Reportable segment | | | | | | | |
| | Power | Ceramics | Electronics | Total | Other | Total | Reconciliations | Consolidated |
| Sales | | | | | | | | |
| Sales to customers | ¥ 56,667 | ¥134,083 | ¥58,198 | ¥248,948 | — | ¥248,948 | — | ¥248,948 |
| Intersegment sales or transfers | 49 | 171 | — | 220 | — | 220 | ¥ (220) | — |
| Total | 56,716 | 134,254 | 58,198 | 249,168 | — | 249,168 | (220) | 248,948 |
| Segment (loss) profit | (11,764) | 33,290 | 4,935 | 26,461 | — | 26,461 | 44 | 26,505 |
| Segment assets | 92,019 | 175,190 | 64,156 | 331,365 | ¥240,573 | 571,938 | (48,615) | 523,323 |
| Other: | | | | | | | | |
| Depreciation and amortization | 5,600 | 9,900 | 3,424 | 18,924 | — | 18,924 | — | 18,924 |
| Impairment losses on assets | 7,183 | — | — | 7,183 | — | 7,183 | — | 7,183 |
| Increase in property, plant and equipment and intangible assets | 2,785 | 21,026 | 2,792 | 26,603 | 2,236 | 28,839 | — | 28,839 |

| | Thousands of U.S. Dollars | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **2013** | | | | | | | |
| | Reportable segment | | | | | | | |
| | Power | Ceramics | Electronics | Total | Other | Total | Reconciliations | Consolidated |
| Sales | | | | | | | | |
| Sales to customers | **$614,149** | **$1,531,617** | **$543,478** | **$2,689,244** | **—** | **$2,689,244** | **—** | **$2,689,244** |
| Intersegment sales or transfers | **372** | **1,458** | **—** | **1,830** | **—** | **1,830** | **$ (1,830)** | **—** |
| Total | **614,521** | **1,533,075** | **543,478** | **2,691,074** | **—** | **2,691,074** | **(1,830)** | **2,689,244** |
| Segment (loss) profit | **(60,947)** | **276,426** | **4,691** | **220,170** | **—** | **220,170** | **—** | **220,170** |
| Segment assets | **932,766** | **2,446,926** | **730,191** | **4,109,883** | **$2,386,819** | **6,496,702** | **(507,021)** | **5,989,681** |
| Other: | | | | | | | | |
| Depreciation and amortization | **50,627** | **124,989** | **38,096** | **213,712** | **—** | **213,712** | **—** | **213,712** |
| Impairment losses on assets | **23,915** | **—** | **—** | **23,915** | **—** | **23,915** | **—** | **23,915** |
| Increase in property, plant and equipment and intangible assets | **29,223** | **256,479** | **24,755** | **310,457** | **21,628** | **332,085** | **—** | **332,085** |

Notes :
1. Reconciliation of segment profit is the adjustment of intersegment transactions.
2. The amount of general corporate assets included in the reconciliation of segment assets is ¥224,361 million ($2,386,819 thousand) and ¥240,573 million at March 31, 2013 and 2012, respectively, mainly consisting of surplus funds (cash and marketable securities), long-term investment funds (investment securities) and the assets of administrative departments.
3. Increase in property, plant and equipment and intangible assets in other relates to the increase in corporate departments.

### Information about geographical areas

(1) Sales

Millions of Yen

| 2013 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | North America | | Europe | | | | |
| Japan | USA | Others | Germany | Others | Asia | Other Areas | Total |
| **¥103,655** | **¥42,180** | **¥4,651** | **¥28,356** | **¥20,121** | **¥36,428** | **¥17,398** | **¥252,789** |

Thousands of U.S. Dollars

| 2013 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | North America | | Europe | | | | |
| Japan | USA | Others | Germany | Others | Asia | Other Areas | Total |
| **$1,102,712** | **$448,723** | **$49,479** | **$301,660** | **$214,053** | **$387,532** | **$185,085** | **$2,689,244** |

Sales are attributed to countries based on the location of the customers.

As stated in Note 3, effective April 1, 2012, the Company and its domestic subsidiaries changed the revenue recognition policies. This accounting policy change was applied retrospectively and the consolidated financial statements for the year ended March 31, 2012, were restated. As a result, sales in Japan, North America and Asia increased by ¥540 million, ¥593 million, and ¥20 million, respectively, and sales in Europe and other areas decreased by ¥1 million and ¥22 million, respectively, for the year ended March 31, 2012.

(2) Property, plant and equipment

Millions of Yen

| 2013 | | | | | | |
|---|---|---|---|---|---|---|
| | | | Asia | | | |
| Japan | North America | Europe | China | Others | Other Areas | Total |
| **¥78,019** | **¥35,864** | **¥19,403** | **¥22,709** | **¥7,185** | **¥705** | **¥163,885** |

Thousands of U.S. Dollars

| 2013 | | | | | | |
|---|---|---|---|---|---|---|
| | | | Asia | | | |
| Japan | North America | Europe | China | Others | Other Areas | Total |
| **$829,990** | **$381,532** | **$206,415** | **$241,585** | **$76,436** | **$7,500** | **$1,743,458** |

# Subsidiaries and Affiliated Companies

As of March 31, 2013

## JAPAN

| JAPAN | Company's Direct and Indirect Ownership (%) | Principal Products and Services |
|---|---|---|
| ■ ENERGY SUPPORT CORPORATION | 100 | Power distribution equipment |
| ■ AKECHI INSULATORS, LTD. | 100 | Electrical insulators |
| ■ IKEBUKURO HORO KOGYO CO., LTD. | 78.9 | Glass-lined reactors & tanks for chemical processing industries |
| ■ NGK CHEM-TECH, LTD. | 100 | Chemical equipment and maintenance |
| ■ NGK FILTECH, LTD. | 100 | Membrane separation systems |
| ■ NGK ADREC CO., LTD. | 96.7 | Refractories/kiln furniture |
| ■ NGK KILNTECH CORPORATION | 100 | Thermal process engineering & products |
| ■ HEISEI CERAMICS CO., LTD. | 60 | Refractories/kiln furniture |
| ■ NGK OKHOTSK, LTD. | 100 | Jig for ceramics production |
| ■ NGK METEX CORPORATION | 100 | Beryllium copper wrought products |
| ■ NGK FINE MOLDS, LTD. | 100 | Molds |
| ■ NGK CERAMIC DEVICE CO., LTD. | 100 | Ceramic electronic components |
| ■ SOSHIN ELECTRIC CO., LTD. | 40.6 | Electronic components and devices |
| ■ METAWATER CO., LTD. | 50 | Environmental protection systems |
| ■ TAJIMI COUNTRY CLUB CO., LTD. | 100 | Operation of a golf course |

### Other Group Companies

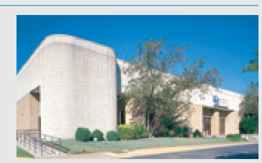
■ KANSAI ENERGYS CORPORATION
■ ENERGYS SANGYO CORPORATION
NGK SPORTS PLANNING CO., LTD.
NGK BUILDING SERVICE, LTD.
■ KYUSYU ENERGYS CORPORATION
■ SOSHIN DEVICE CO., LTD.
NGK LIFE CO., LTD.
NGK LOGISTICS, LTD.
■ HOKURIKU ENERGYS CORPORATION
■ RISSHIN ELECTRONICS CO., LTD.
NGK YU-SERVICE CO., LTD.
NGK EDUCATION SERVICES, LTD.
■ TOKAI ENERGYS CORPORATION
■ SOSHIN POWERTECH CO., LTD.
NGK TECHNICA, LTD.

■ Consolidated companies
■ Affiliated companies accounted for by the equity method

# Global Network

## NORTH AMERICA

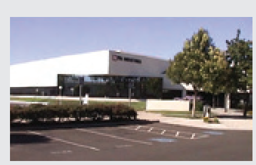

LOCKE INSULATORS, INC.



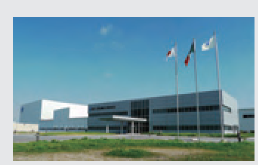
NGK-LOCKE POLYMER INSULATORS, INC.

NGK CERAMICS USA, INC.

NGK METALS CORPORATION



FM INDUSTRIES, INC.



NGK CERAMICS MEXICO, S. DE R.L. DE C.V.

NGK-LOCKE INC.
NGK AUTOMOTIVE CERAMICS USA, INC.
NGK ELECTRONICS USA, INC.
NGK INSULATORS OF CANADA, LTD.

## NORTH AMERICA

| | Company's Direct and Indirect Ownership (%) | Principal Products and Services |
|---|---|---|
| NGK NORTH AMERICA, INC. | 100 | Holding company |
| LOCKE INSULATORS, INC. | 100 | Electrical insulators |
| NGK-LOCKE, INC. | 100 | Electrical insulators |
| NGK-LOCKE POLYMER INSULATORS, INC. | 100 | Electrical polymer insulators |
| NGK INSULATORS OF CANADA, LTD. | 100 | Electrical insulators and ceramic products |
| NGK CERAMICS USA, INC. | 100 | Automotive ceramics |
| NGK AUTOMOTIVE CERAMICS USA, INC. | 100 | Automotive ceramics |
| NGK CERAMICS MEXICO, S. DE R.L. DE C.V. | 95 | Automotive ceramics |
| NGK METALS CORPORATION | 100 | Beryllium copper products |
| NGK ELECTRONICS USA, INC. | 100 | Ceramics for semiconductor manufacturing equipment |
| FM INDUSTRIES, INC. | 100 | Modules for semiconductor production equipment |

## EUROPE AND AFRICA

| | Company's Direct and Indirect Ownership (%) | Principal Products and Services |
|---|---|---|
| NGK INSULATORS UK LTD. | 100 | Electrical insulators |
| NGK CERAMICS EUROPE S.A. | 100 | Automotive ceramics |
| NGK EUROPE GMBH | 100 | Ceramic products |
| NGK CERAMICS POLSKA SP. Z O.O. | 95 | Automotive ceramics |
| NGK CERAMICS SOUTH AFRICA (PTY) LTD. | 100 | Automotive ceramics |
| NGK BERYLCO FRANCE | 100 | Beryllium copper products |
| NGK BERYLCO U.K. LTD. | 100 | Beryllium copper products |
| NGK DEUTSCHE BERYLCO GMBH | 100 | Beryllium copper products |

## ASIA PACIFIC

| | Company's Direct and Indirect Ownership (%) | Principal Products and Services |
|---|---|---|
| NGK INSULATORS TANGSHAN CO., LTD. | 100 | Electrical insulators |
| NGK INSULATORS SUZHOU CO., LTD. | 100 | Electrical insulators |
| NGK STANGER PTY. LTD. | 100 | Power distribution equipment |
| NGK INSULATORS (CHINA) INVESTMENT CO., LTD. | 100 | Electrical insulators and beryllium copper products |
| P.T. NGK CERAMICS INDONESIA | 97.8 | Automotive ceramics |
| SIAM NGK TECHNOCERA CO., LTD. | 100 | Refractories/kiln furniture |
| NGK CERAMICS SUZHOU CO., LTD. | 100 | Automotive ceramics |
| NGK TECHNOCERA SUZHOU CO., LTD. | 100 | Thermal process engineering & products, refractories/kiln furniture |

### Other Group Companies

- ENERGY ELECTRIC (SHANGHAI) CORPORATION
- NGK AUTOMOTIVE CERAMICS MEXICO, S. DE R.L. DE C.V.
  NGK AUTOMOTIVE CERAMICS KOREA CO., LTD.
- SOSHIN ELECTRONICS OF AMERICA, INC.
- SOSHIN ELECTRONICS (HK) LIMITED
  TAIWAN SOSHIN ELECTRIC CO., LTD.
- SOSHIN ELECTRONICS (SZ) LIMITED
- SOSHIN ELECTRONICS (M) SDN. BHD.
  SOSHIN ELECTRONICS EUROPE GMBH

## EUROPE


NGK CERAMICS EUROPE S.A.


NGK CERAMICS POLSKA SP. Z O.O.


NGK BERYLCO FRANCE

NGK BERYLCO U.K. LTD.
NGK EUROPE GMBH
NGK DEUTSCHE BERYLCO GMBH

## AFRICA


NGK CERAMICS SOUTH AFRICA (PTY) LTD.

## ASIA PACIFIC


NGK INSULATORS TANGSHAN CO., LTD.


NGK INSULATORS SUZHOU CO., LTD.


PT. NGK CERAMICS INDONESIA


NGK STANGER PTY. LTD.


SIAM NGK TECHNOCERA CO., LTD.


NGK CERAMICS SUZHOU CO., LTD.


NGK TECHNOCERA SUZHOU CO., LTD.

NGK INSULATORS (CHINA) INVESTMENT CO., LTD.
NGK AUTOMOTIVE CERAMICS KOREA CO., LTD.
NGK INSULATORS, LTD. NEW DELHI LIAISON OFFICE

# Corporate Data

As of March 31, 2013

## NGK INSULATORS, LTD.

2-56 Suda-cho, Mizuho, Nagoya 467-8530, Japan
Tel: +81-52-872-7171
Fax: +81-52-872-7690
URL: http://www.ngk.co.jp/english/

**Paid-in Capital**

69,849 million yen

**Common Stock**

337,560 thousand shares

**Number of Shareholders**

32,285

**Stock Exchange Listings**

Tokyo and Nagoya

**Auditors**

Deloitte Touche Tohmatsu LLC
(The Japanese member firm of Deloitte Touche Tohmatsu)

# Organization

As of April 1, 2013

### Power Business Group

- Business Planning Dept.
- Sales Div.
- Electrical Insulator Div.
  - Electrical Equipment Dept.
- NAS Battery Div.
  - Quality Assurance Dept.

### Ceramic Products Business Group

- Business Planning Dept.
- Worldwide Sales and Marketing Div.
- Engineering Div.
- Manufacturing Div.
- Sensor Div.
- Industrial Process Div.
  - Quality Assurance Dept.

### Electronics Business Group

- Business Planning Dept.
- New Business Development
- High Performance Ceramics Div.
- New Metals Div.
- Electronic Components Div.
  - Quality Assurance Dept.

### Head Office

- Auditing Dept.
- Environmental Management Dept.
- Quality Management Dept.
- Corporate Strategy Office
- New Business Planning Office
- Secretarial Office
- Public Relations Office
- Human Resources Dept.
- CSR Office
- Finance & Accounting Dept.
- Legal Affairs & Intellectual Property Dept.
- General Affairs Dept.
- Purchasing Dept.

### Corporate R&D

- Wafer Project
- NCM Project
- Functional Materials Development Project
- Advanced Materials Development Center
- Materials Research Laboratory
- Future Technology Management Center

### Corporate Manufacturing Engineering

- Administration Dept.
- Manufacturing Engineering Dept.
- Information Technology Dept.
- Construction & Maintenance Dept.

# Board of Directors, Corporate Officers and Audit & Supervisory Board

As of June 27, 2013

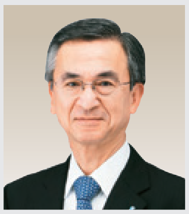
## Board of Directors and Corporate Officers

*Representative Directors


**Taro Kato***
President


**Eiji Hamamoto***
Executive Vice President


**Hiroshi Fujito***
Executive Vice President


**Takeyuki Mizuno**
Director and
Senior Vice President


**Toshiyuki Hamanaka**
Director and
Senior Vice President


**Yukihisa Takeuchi**
Director and
Senior Vice President


**Atoshi Yoshimura**
Director and
Senior Vice President


**Susumu Sakabe**
Director and
Senior Vice President


**Ryohei Iwasaki**
Director and
Senior Vice President


**Hiroyuki Kamano**
Outside Director


**Toshio Nakamura**
Outside Director


**Takafumi Hochi**
Senior Vice President


**Taku Oshima**
Senior Vice President


**Hiroshi Kanie**
Senior Vice President


**Hideaki Saito**
Vice President


**Haruo Fukui**
Vice President


**Nobuo Takahashi**
Vice President


**Yukiyasu Ohguchi**
Vice President


**Koji Yokoi**
Vice President


**Shuhei Ishikawa**
Vice President


**Hideki Yamamoto**
Vice President


**Hiroshi Kurachi**
Vice President


**Takaya Teshima**
Vice President


**Atsushi Matsuda**
Vice President


**Toshiyuki Mima**
Vice President


**Chiaki Niwa**
Vice President


**Nobumitsu Saji**
Vice President

## Audit & Supervisory Board


**Hiroshi Wada**
Audit & Supervisory
Board Member


**Michio Fukuhara**
Audit & Supervisory
Board Member


**Setsuo Tanaka**
Audit & Supervisory
Board Member, Outside


**Ichiro Terato**
Audit & Supervisory
Board Member, Outside

NGK INSULATORS, LTD. Annual Report

This Annual Report is printed on FSC-approved paper using vegetable oil inks.

Printed in Japan