









Minebea Group Environmental Report



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CORPORATE INFORMATION

Minebea Co., Ltd.

Date of Establishment July 16, 1951

Capital (As of March 31, 2009) ¥68,258 million

Net Sales (April 1, 2008 - March 31, 2009) Consolidated: ¥256,163 million Nonconsolidated: ¥175,066 million

Consolidated Net Sales to External Customers

by Business Segment (April 1, 2008 - March 31, 2009) Machined Components ¥115,871 million (45.2% of total) Electronic Devices and Components ¥140,291 million (54.8% of total) Operating Income (April 1, 2008 - March 31, 2009) Consolidated: ¥13,406 million Nonconsolidated: △¥386 million

Ordinary Income (April 1, 2008 - March 31, 2009) Consolidated: ¥11,555 million Nonconsolidated: ¥8,627 million

Net Income (April 1, 2008 - March 31, 2009) Consolidated: ¥2,441 million Nonconsolidated: ¥3,770 million

Number of Employees (April 1, 2008 - March 31, 2009) Consolidated: 48,443 Nonconsolidated: 2,721

Consolidated Total Sales by Region (April 1, 2008 - March 31, 2009)



MACHINED COMPONENTS

Bearings and Bearing-Related Products

Miniature ball bearings Small-sized ball bearings Integrated-shaft ball bearings Rod-end bearings Spherical bearings Roller bearings Bushing Pivot assemblies Tape guides

Other Machined Components

Fasteners Special machined components Magnetic clutches and brakes

ELECTRONIC DEVICES AND COMPONENTS

Rotary Components

Hard disc drive (HDD) spindle motors Fan motors Hybrid-type stepping motors Permanent magnet (PM)-type stepping motors Brush DC motors Vibration motors Variable reluctance (VR) resolvers Micro actuators

Other Electronic Devices and Components

Personal computer (PC) keyboards Speakers Electronic devices Color wheels Lighting devices for liquid crystal displays (LCDs) Backlight inverters Heat management system modules Measuring components Strain gauges, Load cells

EDITORIAL POLICY

- The objective of this report is to present the environmental efforts of Minebea Co., Ltd., and the companies of the Minebea Group to readers worldwide.
- This report has been prepared using "Environmental Reporting Guidelines (fiscal 2007 version)" and "Environmental Accounting Guidelines (fiscal 2005 version)" by the Japanese Ministry of the Environment and "Sustainability Reporting Guidelines Version 3.0" by Global Reporting Initiative (GRI) as a reference.
- Industry terms and other potentially unfamiliar terms are explained on the page on which they first appear.
- This report is printed on paper thinner than paper for previous reports to reduce environmental load. Please note that some portion of this report may be hard to read due to problem caused by thin paper such as offset of printing.

The following table indicates sections required under the Japanese Ministry of the Environment's Environmental Reporting Guidelines (fiscal 2007 version) (unofficial translation) and the page(s) in this report where corresponding sections may be found.

| Guidelines | Page(s) |
|--|--------------------|
| 1. Basic Headings | |
| 1. CEO's statement (Overall summary, commitments to society) | 2-3 |
| 2. Basis of reporting (Reporting organization, period, fields) | 4 |
| 3. Summary of nature of business | Inside front cover |
| 4. Summary of environmental reports | 10-12 |
| 5. Material balance of operations | 6 |
| 2. Environmental Management | |
| 1. Environmental management | 5 |
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| 3. Environmental accounting information | 9 |
| 4. Environment-conscious loans and investments | |
| 5. Supply chain management | 16 |
| 6. Green purchase/procurement | 16 |
| 7. R&D in environment-conscious technologies and DfE (Design for Environment) | 13-15 |
| 8. Environment-conscious transport/shipping | 17 |
| 9. Preservation of biodiversity and sustainable use of biologic resources | 20, 26 |
| 10. Environmental communications | 24-25 |
| 11. Environment-related contributions to society | 26-27 |
| 12. Products and services that contribute to the reduction of environmental burden | 13-15 |
| 3. Activities Aimed at Reducing Environmental Burden | |
| 1. Total energy input and mitigation efforts | 7, 18-19 |
| 2. Total material input and mitigation efforts | 6, 21 |
| 3. Water resource input and mitigation efforts | 7 |
| 4. Amount of material recycled in plants | 7 |
| 5. Total production or total sales volumes | Inside front cover |
| 6. Greenhouse gas emissions and mitigation efforts | 7, 18-19 |
| 7. Amount of load concerning air pollution/life environment and mitigation efforts | 8, 18-21 |
| 8. Chemical substance emissions, transfer and mitigation efforts | 8 |
| 9. Total industrial waste emissions, total volume of industrial waste disposed of as landfill and mitigation efforts | 7, 21 |
| 10. Total wastewater emissions and mitigation efforts | 6 |
| 4. Connection between Environment-friendliness and Management | All the pages |
| 5. Community Activities | 26-27 |

The world is now in the midst of the so-called "greatest economic upheaval and political chaos of the century". The serious global situation is said to remain so in the foreseeable future. I am determined to make untiring and continuous efforts in leading the company as president in the critical period when importance of every decision is so great.

Since assuming presidency, I have asked our employees to address every task with enthusiasm. At times like this, every task has to be addressed speedily, and this requires passion. Also, new vision is necessary and passion is inevitable to realize the vision. Our company has to address various challenges. I believe that while thorough retrenchment, streamlining of operations and start-up of new business are important, response to environmental issues is becoming increasingly significant.

Minebea was founded in 1951 and is going to mark the 60th anniversary soon. Another thing I am asking our employees to challenge is to lay the groundwork for the company looking ahead to the 100th anniversary. It is our important mission to maintain sound management of the company and to contribute to society, but I believe that we also have to focus on maintenance and improvement of environment at the same time.

We would feel responsible for our descendants with social responsibilities as company unfulfilled if nature or living environment were to be impaired greatly when our company marks the centenary anniversary.

We are committed to environmental management as important business task and are absolutely determined to make considerable efforts as before so that such tragedy would not happen. Your continued support will be greatly appreciated.

Global recession triggered by collapse of American sub-prime loans last year and subsequent economic disorder have greatly affected manufacturers like us. Worldwide inventory adjustment in the second half of last year substantially decreased production activities. Ironically, energy consumption of manufacturing industry decreased compared with last year according to statistics due to the global depression, which forces us to think in a new and different way.

We actively conducted environmental conservation activities last year based on the judgment that special plans that cannot be formed normally or measures can be realized in the ongoing depressed economic climate. Making closed system of drainage in two plants in China is one of them.

Cost would not be so large if we purchase entire water without recycling, but the cost necessary to make wastewater clean will increase every year and water discharged into the sewerage system will not help improvement of the domestic environment even if wastewater treatment is withinlocal regulation.

Our products do not consume so much energy during the production process due to their characteristics and we believe it is important to control energy and resources in logistics process as our customers have plants all over the world. Development of transportation route with less emission of CO₂ using high-speed ferry or land route is part of environmental measures.

We have conducted researches on packing method that directly affects quality of products delivered to customers and looked for improvement of recycling efficiency by reviewing packing specifications and development of efficient disposal route appropriate for types of packing material. I really hope that accumulation of such efforts will help to realize new world where economic activities are in harmony with beautiful nature and life environment.



Yoshihisa Kainuma Representative Director, President and Chief Executive Officer



apple white

Akihiro Hirao Director, Senior Managing Officer, Officer in Charge of Environmental Preservation



ENVIRONMENTAL PHILOSOPHY

Established August 26, 1993 Revised April 1, 2009

Minebea strives to contribute to higher quality, more comfortable lifestyles by providing truly valuable products and services. At the same time, the Company works to minimize the environmental burden of its various activities and promote greater harmony, thereby contributing to the preservation and improvement of a healthy environment.

Environmental Policy

1. Development/Design

Minebea shall focus on the development and design of products that contain no hazardous substances for the environment or the health and safety of humans, consume little energy and satisfy the "3R" (reduced, reused or recycled) criteria.

2. Manufacturing

Minebea shall set targets and restructure and revise its manufacturing procedures by using materials that contain no hazardous substances for the environment or the health and safety of humans, thereby improving yield, reducing waste and lowering energy consumption.

3. Logistics

Minebea shall employ packing materials that contain no hazardous substances for the environment or the health and safety of humans and satisfy the "3R" criteria, as well as procedures that lower energy consumption and prevent the release of hazardous substances.

4. Cooperation with Authorities and Local Public Entities

Minebea shall observe environment-related rules and regulations imposed by the country and local authorities and support environmental conservation and prerention of pollution.

5. Overseas Activities

In its manufacturing and distribution activities oversea, Minebea shall observe environment-related rules and regulations imposed by local authorities and do its best to preserve environment and prerention of pollution in adjacent areas. Minebea shall also be an aggressive supplier of new environmental protection technologies.

6. Environmental Audits

Minebea shall conduct periodical environmental audits at all of its manufacturing and other facilities with the aim of ensuring the effective implementation and continual improvement of its environmental management system.

7. Employee Education

Minebea shall require employees to attend related courses to encourage their involvement in environmental protection activities in the workplace and at home.

8. Observe Minebea's Environmental Policy

All Minebea Group employees and other individual working at our sites shall adhere to Minebea's Environmental Policy. If any individual has an environment-related concern, he /she shall report it promptly to his/her manager, who shall respond promptly.

Yoshihisa Kainuma Representative Director President, Chief Executive Officer Minebea Co., Ltd.

Period under review

Fiscal 2008 (April 1, 2008 - March 31, 2009)
 (Some activities that took place subsequent to March 31, 2009, are also included.)

Manufacturing facilities

This report covers the following Minebea Group manufacturing facilities.



Asia Pacific

Thailand

NMB-Minebea Thai Ltd. Ayutthaya Plant Bang Pa-in Plant Rojana Plant Lop Buri Plant Minebea Electronics Motor (Thailand) Co., Ltd. Bang Pa-in Plant Lop Buri Plant NMB Mechatronics (Thailand) Co., Ltd.

China

Minebea Electronics & Hi-Tech Components (Shanghai) Ltd. Shanghai Plant Xicen Plant Shanghai Shun Ding Technologies Ltd. Minebea Electronics Motor (Zhuhai) Co., Ltd.

Singapore

NMB Singapore Ltd. Pelmec Industries (Pte.) Ltd.

Malaysia Minebea Electronics Motor (Malaysia) Sdn.Bhd. Recent years have seen an increase in awareness worldwide that there is no time to waste in addressing such environmental issues as global warming and the use of hazardous chemical substances. The Minebea Group has long taken an active role in efforts to resolve environmental issues. In 1993, for example, the Group eliminated specified chlorofluorocarbons for cleaning and ethane from all of its production processes. This basic stance remains unchanged. The Minebea Group continues to recognize environmental protection as a top management priority. Its manufacturing facilities around the world have acquired certification under ISO 14001 and engage in a wide variety of environmental preservation activities.

Environmental Management System





Audit of ISO 14001 by external examining authority (Hamamatsu Plant)



Management review (Thai Operations)



Site audit of ISO 14001 (Thai Operations)

Minebea's global presence currently encompasses 29 plants and over 37 sales offices in 16 countries, having operations in a wide-ranging field.

The chart below depicts input and output from Minebea's plants in fiscal 2008.

■Input-Output Flow and Material Balance (1)



below 7.0 is acidic.

pH: A solution's pH reading indicates whether it is alkaline or acidic. The pH range is from 0 to 14, with 7.0 being neutral. Anything above 7.0 is alkaline, anything

Energy Consumption and Resulting CO₂ Emissions (Fiscal 2008)

| Energy | Unit | Japan | Thailand | China | Singapore | United Kingdom | Germany | United States | Slovakia | Total |
|---------------------------|----------------------|--------|----------|---------|-----------|----------------|---------|---------------|----------|---------|
| Electricity | MWh | 44,377 | 480,123 | 105,046 | 48,185 | 15,688 | 2,634 | 37,139 | 795 | 733,988 |
| Kerosene | kiloliters | 42 | 0 | 106 | 0 | 0 | 0 | 3 | 0 | 151 |
| Heavy oil A | kiloliters | 425 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 425 |
| Light oil | kiloliters | 9 | 704 | 74 | 166 | 0 | 0 | 111 | 0 | 1,064 |
| Gasoline | kiloliters | 18 | 324 | 234 | 30 | 0 | 12 | 1 | 0 | 619 |
| LPG | Tons | 148 | 39 | 160 | 10 | 0 | 0 | 37 | 0 | 394 |
| City gas | 1,000 m ³ | 766 | 2,638 | 0 | 0 | 44 | 108 | 641 | 47 | 4,244 |
| Water | 1,000 m ³ | 188 | 1,692 | 423 | 180 | 455 | 3 | 75 | 41 | 3,057 |
| CO ₂ emissions | Tons | 23 527 | 263 146 | 84 258 | 26 747 | 7 512 | 1 172 | 23 028 | 282 | 429 672 |

Note: In determining values for use in calculating CO₂ emissions at sites in Japan, Minebea referred to the Greenhouse Gas Emission Calculation Guideline for Businesses, version 2.4, published by Japan's Ministry of the Environment. In determining values for use in calculating CO₂ emissions overseas, Minebea referred to Greenhouse Gas (GHG) Protocol (2005) criteria.



Waste (12)

| | | | | | | | | | (Tons) |
|---|-------|------------|-------|-----------|----------------|---------|---------------|----------|--------|
| Classification | Japan | Thailand | China | Singapore | United Kingdom | Germany | United States | Slovakia | Total |
| Reused or recycled internally | 27 | 460 | 1,995 | 140 | 70 | 0 | 10 | 0 | 2,703 |
| ② Transported outside the Company as waste | 1,070 | 19,684 | 7,732 | 2,611 | 400 | 23 | 2,485 | 198 | 34,202 |
| ③ Reused or recycled externally | 301 | 15,603 | 6,429 | 1,706 | 117 | 8 | 1,849 | 123 | 26,136 |
| (4) Disposed of as landfill | 84 | 4,081 | 495 | 453 | 283 | 1 | 530 | 8 | 5,935 |
| Note Element (en Oriente eller | | 1011 1 1 1 | | | | | | | |





Handling and Transfer of PRTR Chemicals (Japan; as reported to relevant authorities)

| | | | | | | | | (Tons) |
|------|-------|------------------|---------|------------------------------|---------------------|----------|----------|----------------|
| PRTR | | Chamical | Volume | | Emissions | | Transfer | Plant |
| N | umber | Chemical | Handled | Released into the Atmosphere | Released into Water | Landfill | Waste | Fiant |
| | 232 | Nickel compounds | 0.8 | 0 | 0.03 | 0 | 0.28 | Fujisawa Plant |
| | | | | | | | | |

Minimizing Water and Air Pollution

\bigcirc Concentrations in Water

| Japan | | | | | | | | | |
|----------------------|-------------|-----------------|---------|------------|----------------------|-------------|-----------------|---------|------------|
| Karuizawa Plant | | | | (mg/liter) | Hamamatsu Plant | | | | (mg/liter) |
| Item | Legal Limit | Voluntary Limit | Maximum | Average | Item | Legal Limit | Voluntary Limit | Maximum | Average |
| pН | 5.8-8.6 | 6.0-8.0 | 7.7 | 7.5 | pН | 5.8-8.6 | 6.0-8.0 | 7.6 | 7.2 |
| COD | 30 | 10 | 5.0 | 3.4 | COD | 25 | 20 | 10.8 | 6.3 |
| BOD | 30 | 10 | 2.5 | 1.7 | BOD | 25 | 20 | 6.3 | 2.1 |
| SS | 50 | 30 | 20.0 | 8.8 | SS | 40 | 25 | 20.4 | 6.8 |
| n-Hexane extractions | 5 | 2 | <1.0 | <1.0 | n-Hexane extractions | 5 | 5 | <1.0 | <1.0 |
| Fujisawa Plant | | | | (mg/liter) | | | | | |
| Item | Legal Limit | Voluntary Limit | Maximum | Average | | | | | |
| pН | 5.8-8.6 | 6.6-7.8 | 7.4 | 7.0 | | | | | |
| COD | 60 | 30 | 13.0 | 6.0 | | | | | |
| BOD | 60 | 30 | 8.0 | 2.0 | | | | | |
| SS | 90 | 10 | 3.0 | 2.0 | | | | | |
| n-Hexane extractions | 5 | 2 | 1.0 | 1.0 | | | | | |
| | | | | | | | | | |

China

| Shanghai Plant | | | | (mg/liter) | Xicen Plant | | | | (mg/liter) |
|----------------------|-------------|-----------------|---------|------------|----------------------|-------------|-----------------|---------|------------|
| Item | Legal Limit | Voluntary Limit | Maximum | Average | Item | Legal Limit | Voluntary Limit | Maximum | Average |
| pН | 6-9 | 7-8 | 8.0 | 7.6 | рН | 6-9 | 7-8 | 8.0 | 7.6 |
| COD | 60 | 20 | 16.2 | 10.9 | COD | 60 | 20 | 11.9 | 6.1 |
| BOD | 15 | 5 | 2.2 | 0.7 | BOD | 15 | 5 | 4.7 | 0.6 |
| SS | 70 | 10 | 9.5 | 3.9 | SS | 70 | 10 | 9.4 | 4.6 |
| n-Hexane extractions | 3 | 1 | 1.0 | 0.7 | n-Hexane extractions | 3 | 1 | 1.0 | 0.7 |

Thailand

| Bang Pa-in Plant | | | | (mg/liter) | Lop Buri Plant | | | | (mg/liter) |
|----------------------|-----------------------------|-----------------|---------|------------|----------------------|-------------|-----------------|---------|------------|
| Item | Legal Limit | Voluntary Limit | Maximum | Average | Item | Legal Limit | Voluntary Limit | Maximum | Average |
| pН | 5.5-9.0 | 6.5-8.5 | 8.4 | 7.6 | рН | 5.5-9.0 | 6.5-8.5 | 8.1 | 7.6 |
| COD | 120 | 80 | 42.0 | 32.2 | COD | 120 | 80 | 67.0 | 25.0 |
| BOD | 20 | 18 | 5.8 | 3.0 | BOD | 20 | 18 | 5.0 | 3.0 |
| SS | 50 | 20 | 5.1 | 2.1 | SS | 50 | 20 | 13.0 | 2.5 |
| n-Hexane extractions | 5 | 5 | 4.9 | 2.6 | n-Hexane extractions | 5 | 5 | 1.3 | 1.0 |
| Rojana Plant | | | | (mg/liter) | Ayutthaya Plant | | | | (mg/liter) |
| Item | Limit for Industrial Estate | Legal Limit | Maximum | Average | Item | Legal Limit | Voluntary Limit | Maximum | Average |
| pН | 5.5-9.0 | 6.0-8.8 | 6.8 | 6.7 | рН | 5.5-9.0 | 6.5-8.5 | 8.1 | 7.6 |
| COD | 1250 | 1000 | 238.0 | 171.0 | COD | 120 | 80 | 62.6 | 32.1 |
| BOD | 500 | 450 | 71.0 | 48.0 | BOD | 20 | 18 | <3.0 | <3.0 |
| SS | 200 | 150 | 13.0 | 12.0 | SS | 50 | 20 | 3.7 | 0.7 |
| n-Hexane extractions | 10 | 10 | 2.5 | 2.2 | n-Hexane extractions | 5 | 5 | 2.7 | 1.9 |

\bigcirc Concentrations in Air

| Karuizawa Plan | t (Through fle | ow-type hot w | water boiler) | | | Karuizawa Plant (Vacuum hot water boiler No.2) | | | | | | | | | | | |
|--|--|------------------------------------|--|-------------------------|-------------------------|--|--|---|--|------------------------|------------------------|--|--|--|--|--|--|
| Item | Unit | Legal Limit | Voluntary Limit | Maximum | Average | Item | Unit | Legal Limit | Voluntary Limit | Maximum | Average | | | | | | |
| Particulates | g/m ³ N | — | 0.25 | <0.005 | <0.005 | Particulates | g/m³N | — | 0.25 | <0.005 | <0.005 | | | | | | |
| NOx | ppm | — | 150 | 37 | 37 | NOx | ppm | — | 150 | 56 | 56 | | | | | | |
| SOx | m ³ N/h | | 1 | <0.010 | <0.010 | SOx | m ³ N/h | — | 1 | <0.015 | <0.015 | | | | | | |
| | | | | | | | Karuizawa Plant (Vacuum hot water boiler No.1) Hamamatsu Plant (Absorption chiller heater) | | | | | | | | | | |
| Karuizawa Plani | t (Vacuum he | ot water boile | er No.1) | | | Hamamatsu Pla | nt (Absorptio | on chiller hea | iter) | | | | | | | | |
| Karuizawa Plant Item | t (Vacuum he Unit | ot water boile Legal Limit | er No.1) Voluntary Limit | Maximum | Average | Hamamatsu Pla Item | nt (Absorptio Unit | on chiller hea Legal Limit | iter) Voluntary Limit | Maximum | Average | | | | | | |
| Karuizawa Plant Item Particulates | t <mark>(Vacuum ho</mark> Unit g/m ³ N | ot water boile Legal Limit — | er No.1) Voluntary Limit 0.25 | Maximum <0.005 | Average <0.005 | Hamamatsu Pla Item Particulates | <mark>nt (Absorptio</mark> Unit g/m³N | on chiller hea Legal Limit 0.3 | tter) Voluntary Limit 0.2 | Maximum <0.01 | Average <0.01 | | | | | | |
| Karuizawa Plant Item Particulates NOx | t <mark>(Vacuum ho</mark> Unit g/m ³ N ppm | ot water boile Legal Limit — | er No.1) Voluntary Limit 0.25 150 | Maximum <0.005 54 | Average <0.005 54 | Hamamatsu Pla Item Particulates NOx | nt (Absorptio Unit g/m ³ N ppm | on chiller hea Legal Limit 0.3 180 | tter) Voluntary Limit 0.2 100 | Maximum <0.01 70 | Average <0.01 67 | | | | | | |

The Minebea Group accounts for environmental protection efforts using economic indicators with the aim of ensuring its investments are both appropriate and effective. The Group's environmental accounting system is based on the "Environmental Accounting Guidelines 2005" published by Japan's Ministry of the Environment.

Scope

Period covered Fiscal 2008 (April 1, 2008 - March 31, 2009) Scope of calculations

Minebea and Minebea Group (see page 4)



Zero effluent system in Xicen Plant.

Environmental Protection Activities Costs of the Minebea Group

| | | | | | (Millions of yen) |
|---|--|--|---|-----------------|-------------------|
| | | Costs of Enviro | nmental Protection Activities | Total amount of | covered subject |
| | | Category | Description | Investment | Expenses |
| | Business a protection burden res service act | rea costs (Environmental costs to minimize the environmental ulting from manufacturing and ivities within the business area) | See specific entries for a, b and c below. | 632 | 2,197 |
| | | a. Pollution prevention costs | Costs related to the installation, disposal, maintenance and management of facilities to prevent water and air pollution, etc. | 197 | 561 |
| | Breakdown | b. Environmental protection costs | Costs for installation of ozone-depleting substance (ODS)-free water-based cleaning facilities, high-efficiency refrigerator, depreciation, operating and maintenance costs, etc. | 338 | 1,152 |
| | | c. Resource recycling costs | Equipment and costs for waste disposal and recycling, etc. | 97 | 484 |
| 2 | Upstream/ protection key upstream | ownstream costs (Environmental osts to minimize the burden of and downstream operations) Costs related to the installation of analyzers, analysis of materials as part of the Green Procurement Program, printing and revenue stamp costs for contracts with suppliers, etc. | | 6 | 124 |
| (| Administrat | ion costs (Environmental protection ming from administrative activities) | Personnel, maintenance and management costs for environmental management system, etc. | 11 | 923 |
| 4 | R&D costs stemming | (Environmental protection costs from R&D activities) | Costs related to the research and development of ODS-free water-based cleaning facilities, etc. | 1 | 29 |
| Ę | Community activity costs (Environmental protection costs stemming from community activities) | | Costs related to greening programs, landscape preservation, etc. | 0 | 6 |
| (| Environmer incurred for | ntal remediation costs (Costs r environmental remediation efforts) | Costs related to soil replacement and the operation, maintenance and depreciation of water-based cleaning facilities, etc. | 8 | 139 |
| - | Total | | | 658 | 3,418 |
| F | change rates us | ad US\$1 00-¥98 2 €1 00-¥129 8 1 b | aht-¥2.8+1 yuan-¥14.3+ S\$1.00-¥64.7+ £1.00-¥140.5 | | |

This section focuses on Minebea's environmental achievements and objectives in fiscal 2008 and objectives for fiscal 2009. For detailed information and specific examples, please refer to the page(s) indicated in the right column.

Products

| Objectives for Fiscal 2008 | Achievements in Fiscal 2008 | Objectives for Fiscal 2009 | Page |
|---|---|---|------|
| Lower resource consumption Reduce volume of materials/parts used | 1-1. Manufactured world's smallest ultra-small bearing with outer diameter of 1.5 mm | Development and manufacturing of products with enhanced life and high weathering resistance | 14 |
| 2. Promote EuP ⁽¹⁾ directive-compliant LCA ⁽²⁾ -based eco-friendly design system Develop products that consume less electricity | 1-2. Developed and commercialized ultra-small permanent magnet (PM) stepping motors (ø3mm, ø6mm), etc. 2. Drew up the draft of "eco-friendly design guideline" Due to gather public comments | Development and manufacturing of complex products (Electro Mechanics Solution) that are combination of machines parts and electronic instruments. Promotion of "eco-friendly design" | 15 |

Green Procurement

| Objectives for Fiscal 2008 | Achievements in Fiscal 2008 | Objectives for Fiscal 2009 | Page |
|---|---|---|------|
| 1. Control chemical substances in products Ensure continued RoHS ⁽³⁾ and ELV ⁽⁴⁾ compliance Comply with REACH ⁽⁵⁾ regulation | 1-1. Established the green procurement coordinating committee in June, 2008 1-2. Conducted in-house audit for control of chemical substances in products in February, 2009 | 1. More thorough green procurement including supplier chain | 16 |

Distribution

| Objectives for Fiscal 2008 | Achievements in Fiscal 2008 | Objectives for Fiscal 2009 | Page |
|--|---|---|------|
| 1. Expand use of energy-efficient distribution methods | Continued to promote use of energy-efficient distribution methods | 1. Expand use of energy-efficient distribution methods | 17 |
| 2. Improve packaging materials and transport methods | 2. Promoted reuse and recycle of packing materials | 2. Improve packaging materials and transport methods | |

| Glossary | | | |
|---|--|--|--|
| (1) (2) (3) (4) (5) | EuP (Energy-using Products) directive: An EU directive that obliges manufacturers of energy-using products to adopt ecodesign considerations. LCA (Life cycle assessment): An LCA is used to quantify the "cradle-to-grave" impact of a given product on the environment, that is, the impact throughout the product's life cycle. RoHS (Restriction of Hazardous Substances) directive: An EU directive banning the use of certain hazardous substances in electrical and electronic equipment. ELV (End-of-Life Vehicles) directive: An EU directive that sets recycling rates for automobiles and bans the use therein of substances that negatively impact the environment. REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) regulation: A regulation on chemicals and their safe use compelling manufacturers and importers in EU to register, authorize and gather information on the properties of their chemical substances. | | |

■ Plants

| Objectives for Fiscal 2008 | Achievements in Fiscal 2008 | Objectives for Fiscal 2009 | Page |
|---|--|--|---------------|
| Reduction of Energy Consumption/Contribution to Prevention of Global Warming Lower electricity consumption (per unit of sales) 1% annually | Total electricity consumption at plants worldwide: Fiscal 2008: 824,545 MWh Fiscal 2009: 733,988 MWh Purchased green power Implemented measures to lower energy consumption Promoted greening of plants Changed fuels used Replaced heavy oil A with city gas or electricity | 1. Lower energy consumption (per unit of sales) 1% annually | 7 18 19 |
| Promotion of "3R" ⁽⁶⁾ Compatibility for Waste Reduce the total waste output 10% from the fiscal 2005 level by June 2009 | Final disposal volume (landfill) at worldwide plants of the Minebea Group Fiscal 2008 volume: 7,806 tons Fiscal 2009 volume: 5,935 tons | Reduce the total disposal of waste as landfill: Reduce 5,000 tons annually | 7 |
| Prevention of Water Contamination Observe environmental laws and self-imposed regulations | All plants have brought contamination below levels stipulated by local laws and self-imposed regulations | Observe environmental laws and self-imposed regulations | 8 |
| Prevention of Air Pollution Observe environmental laws and self-imposed regulations | All plants have brought contamination below levels stipulated by local laws and self-imposed regulations | Observe environmental laws and self-imposed regulations | 8 |
| Rehabilitation of Contaminated Soil and Groundwater 1. Observe environmental laws and regulations 2. Continue to implement measures at plant sites found to be contaminated | Continued to take steps to resolve contamination caused by chlorinated organic solvents | Observe environmental laws and regulations Continue to implement cleanup measures at plant sites found to be contaminated | 21 |
| Management of Chemical Substances 1. Expand use of MMDB-II⁽⁷⁾ 2. Expand use of English-language version of MMDB-II | Continued use of MMDB-II | Expand use of MMDB-II | _ |
| Establishment of Pollution Patrol Programs1. Continue to implement regular patrols2. Conduct regular audits of waste processing service providers | Implemented environmental patrols covering plants as well as surrounding areas Conducted regular audits of waste processing service providers | Implement regular patrols Conduct regular audits of waste processing service providers | 21 |

| Glo | sary 🐛 | | |
|------------|--|--|--|
| (6) (7) | 3R: "Reduce, reuse, recycle": An initiative that sets priorities for use of waste. MMBD-II: A data base for referring to MSDS of chemicals used in plants of the Minebea Group and for controlling entering and dispatching from warehouse. | | |
| | | | |

Other Areas

| Item | Objectives for Fiscal 2008 | Achievements in Fiscal 2008 | Objectives for Fiscal 2009 | Page |
|---------------------------------|---|--|--|----------|
| Environmental | In-house environmental audits Ongoing | Implemented audits by in-house environmental auditors | Ongoing | 5 |
| Audits | External environmental audits Ongoing | Implemented audits by a third-party certification organization | Ongoing | |
| | New employees Ongoing | Implemented environmental education programs for new recruits Basic employee education | Ongoing | 22 23 |
| Environmental | Basic employee education Ongoing | Provided regular environmental education for all employees | Ongoing | |
| Education | Emergency response training Ongoing | Implemented fire and oil leak drills | Ongoing | |
| | In-house training (Internal auditors) Ongoing | Put aside in-house training of internal auditors in fiscal year 2009. Refreshment training for qualified in-house auditors was conducted, though. | Ongoing | |
| Environmental Communications | Present information on environmental protection efforts Publish Minebea Group Environmental Report | Published "Minebea Group Environmental Report 2008" and presented information on environmental protection efforts on the Minebea web site. Presented information on environmental protection efforts on the Minebea web site. | Publish Minebea Group Environmental Report 2009 | 24 25 |
| | Communication with local communities Continue to communicate with local communities | Conducted summer festival, etc. with local residents Supported Environmental click fund-raising for Fujisawa city | Ongoing | |
| | Clean-up programs Ongoing | Organized clean-ups around plants, including roads traveled by employees commuting to work | Ongoing | 26 27 |
| | Tree-planting/Greening of plants Ongoing | Conducted at plants | Ongoing | |
| Community | Support for local environmental protection efforts Ongoing | Voluntary participation, etc. | Ongoing | |
| Activities | Environmental protection fund Continue to use fund to assist local environmental protection activities Shanghai-Minebea Lake Dianshan-hu Environmental Protection Fund (Established in April, 1996): Rmb 11.6 million (approx. ¥166.0 million) | Examine execution plan of local environmental protection activities using fund | Continue to use fund to assist local environmental protection activities | |

Note: The objectives presented herein were formulated based on certain assumptions. Please note that the Company's actual performance may vary significantly from any particular objective, owing to various factors. Persons interested in transactions with Minebea are advised to contact the appropriate person in charge in advance.

The Minebea Group manufactures ball bearings; machined components, notably aircraft and automotive components; and electronics components, including motors, liquid crystal display (LCD) backlights, strain gages and PC keyboards.

These products are used in a wide range of devices in everyday life.

It is estimated that, for example, between 100 and 200 small-sized ball bearings are used in the average home. Ball bearings contain rolling elements, that are, balls, which minimize friction, thus enabling devices to rotate smoothly. They are required for advanced home and office electronic equipment and are contributing to efforts to develop models that are smaller, use less energy and last longer.

Minebea Products: Essential to Modern Lifestyles



Development of Environment-Friendly Products

O World's smallest ball bearings with ultra-small outer diameter of 1.5 mm

Minebea has succeeded in the commercialization of ultra-small ball bearings that are 1.5 mm in outer diameter and 0.65 mm in thickness, making them the smallest in the world (according to our research). These ball bearings have the same pressed-steel ball bearing cage structure as normal miniature ball bearings.

With a 60% share of the global market, Minebea is the leading manufacturer of miniature ball bearings with outer diameters of 22 mm or less. The smallest ball bearings that Minebea has put to practical use up to this point have been the 2.2 mm outer diameter ball bearings.

While achieving further miniaturization, these ultra-small ball bearings of 1.5 mm in outer diameter have the same high precision, durability and rigidity of the products that were formerly the smallest. This new product will be proposed for active use in the moving parts of medical devices, micro-motors, micro-machines and other fields for which the conventional ball bearings were not suited.

OHigh corrosion resistant miniature bearings

Minebea started marketing of high corrosion resistant miniature bearings called "Giga Protection®" (the "GP bearings") in July, 2009. Compared with stainless steel used in ordinary bearings, the GP bearings improve the resistance to rust and corrosion by 20 times or more (over 500 hours at salt spray testing, JIS-Z-2371).

Adopting materials with superior resistance to rust and corrosion, the GP bearings can be expected to be used in the applications requiring high resistance to rust and corrosion - such as fishing tackles, including fishing reels, and marine equipment exposed to seawater (salt water); wind meter exposed to wind and rain; and medical equipment easily eaten away by chemicals, etc. More attractive products can be developed by using GP bearings in easily rusting parts to offer users some benefits such as being able to largely reduce maintenance after the purchase of the product.

* Lower in load bearing performance than conventional stainless steel bearings due to the characteristics of the materials. Ideally suited to comparatively low load bearing applications.





World's smallest ball bearings with ultra-small outer diameter of 1.5 mm

\langle GP bearing salt spray testing result (in accordance with the JIS-Z-2371 standard) \rangle Salt spray test



O Weather-resistant, long-life, high-performance AC fan motors

Minebea has commercialized a series of weather-resistant (oil proof and dust proof), long-life AC fan motor for products used in harsh environments, such as machine tools and for products used outdoors, such as solar light generation systems and rechargers for electric vehicles.

Adopting a coil section formed in one piece of epoxy resin and a labyrinth structure ⁽¹⁾ in the rotating section, this series dramatically enhances oil proof and dust proof capabilities (equivalent to "IP54" ⁽²⁾). Additionally, when compared with our conventional models, it improves static pressure by up to 30%. It comes in two sizes (120 Square and ø170), as well as in a total of four types, which allows for selection of the best models for specific application needs. "Metal Blades Type" excels in oil proof requirement, while "Plastic Blades Type (PBT)" offers high static pressure and long wear requirement.

Users have to do troublesome maintenance work to use a fan motor in a harsh environment. Enhancing weather resistance in all kinds of environments, this series saves users' time and trouble required for the maintenance while at the same time contributing to lowering life cycle costs.

O Ultra-small permanent magnet (PM)-type stepping motor with high resolution

Minebea has commercialized two types of world's highest resolution ultra-small permanent magnet-type stepping motors (the "PM stepping motors") ⁽³⁾ having outside diameter of 3.3 mm and 6 mm as mass production models.

The outside diameter of 3.3 mm (hereinafter referred to as ø3 mm), despite with an ultra-small diameter, allows fine positioning of 20 steps per rotation. It aims for adoption in compact, low-profile digital products - such as high-performance cameras for cellular phones and Blu-ray Disc drives for slim-type notebook computers that was difficult for conventional products. The model with outside diameter of 6 mm (hereinafter referred to as ø6 mm) achieves high resolution of 40 steps per rotation (conventional products are 20 steps) - the first time in the world as a mass-produced PM stepping motor of the same size. Both ø6 mm and ø3 mm motors allow ultra high fineness and high power torque. The ø6 mm contributes to further heightening the functionality and added value of digital cameras, such as image stabilization through accurate positioning control, quick auto focuses and miniaturizing and silencing products by eliminating reduction gears.



Weather-resistant, long-life, high-performance AC fan motors

Glossary

- (1) Labyrinth structure: A special structure that eliminates the incorporation of dust into the rotation axis and the coil section, this structure is called "labyrinth structure" because it has a complicated shape in itself.
- (2) IP54: IP (Internal Protection) is "degrees of protection provided by enclosures (IP code)" referred to in JISC 0920(IEC 60529). The degrees of protection are expressed in two figures following the IP. 1st code 5: Protection against the penetration of solid foreign objects. The
 - apparatus is dust proof. 2nd code 4: Protection against splashing water. This represents no splashed
 - 2nd code 4: Protection against splasning water. This represents no splasned water effects from any direction.



High resolution, ultra-small PM stepping motor (Left: ø3 mm, Right: ø6 mm)

Glossary 🤽

(3) Stepping motors: Stepping motors convert electrical signals into mechanical actions. The number of electrical signals generated determines rotation number. Stepping motors support not only successive rotation but also intermittent driving, variable rotation, positive rotation and negative rotation. They are used in various OA equipment, such as printers and fax machines, PC peripherals, digital devices, precision equipment, etc. Green procurement plays an important role in facilitating ongoing compliances with restrictions on hazardous substances and management, such as those specified in the EU's RoHS directive and REACH regulation. In addition to setting forth procurement guidelines aimed at ensuring legal compliance and customer satisfaction, as well as at reducing the use of substances that give negative impact to the environment, the Minebea Group gives priority to procuring environment-friendly materials and parts from suppliers that actively work to preserve the environment.

Publication of Minebea Group Green Procurement Standard

It is important that no harmful material be included in materials and parts Minebea purchases or uses. Minebea published "Minebea Group Green Procurement Standard" and asks our partners to provide products (materials, parts) free from harmful materials and to submit data and documents as proof as needed.

O Introduction of green procurement activity on website

Green procurement activity of the Minebea Group is introduced in our website as well.

Detailed information on Minebea's green procurement activity for our partners and customers is available from the following URL.

http://www.minebea.co.jp/

© Control of chemical substances included in Minebea products

Establishment of specification (Green Procurement Standard) and presenting it to our partners do not necessarily prevent harmful material from being included in our products.

Minebea belongs to JAMP (Joint Article Management Promotion-consortium) and is developing control system for every process from the stage of development/design to the stage of product shipment according to the "Chemical Substances Management Guideline" issued by JAMP.

Minebea selected committee members from all the product divisions to set up "Green Procurement Coordinating Committee" in June, 2008. It examines common problems, draws up rules and conducts in-house audit for management of chemical substance in products between divisions mutually.



Minebea Group Green Procurement Standard Cover of the third edition



Website introducing Minebea's green procurement activity



Briefing session for in-house audit on management of chemical substance in products

Distribution practices have a significant impact on the environment. Corporate entities can thus be said to play a crucial role in efforts to reduce that impact.

The Minebea Group is taking various steps, including implementing modal shifts, aimed at reducing emissions of CO₂ and atmospheric pollutants.

OLow-energy transportation using ships and shortening of lead time

Minebea uses high-speed ferries between Shanghai and Hakata for exporting or importing products, machinery and equipment, materials or the like between China and Japan and uses JR freight trains or domestic vessel between Hakata and Tokyo. This transportation route shortens lead time greatly compared with transportation using only common freight ships between Shanghai and Tokyo and reduces energy consumption (CO₂ emission) substantially compared with air transportation. High-speed ferries (RORO ships) allow loading and unloading containers using trailers without using large-sized harbor cranes to contribute substantially to reduction of lead time while saving energy.



How containers are unloaded from a RORO ship

Ouse of reusable bands to prevent collapse of cargo instead of stretch films

Stretch films have traditionally been wound around cardboard or plastic cases on pallets to prevent collapse of cargo during transportation. Stretch films are used only once and then thrown away. Minebea uses reusable bands to prevent collapse of cargo during transportation between Minebea plants and warehouses instead of using disposable films. The bands can be used approximately 1,000 times.

OPromotion of recycling used packaging materials

Minebea promotes recycle of cardboard, cushioning materials and wrapping materials in packing materials for products delivered to customers in Japan after they were manufactured in overseas factories. Cardboard, cushioning materials and wrapping materials used for packing materials are collected when products unloaded at an airport in Japan are delivered directly to our customers by truck. The truck returns to the airport with the used packing materials, which are sorted in the airport, compressed with machines and are sold to recycling companies as recycle materials according to their types.



Reusable bands to prevent collapse of cargo



1) Styrofoam package waste



3) Recycled material



2) Compression

"Minebea's manufacturing activities depend on the communities in which its plants are located. Accordingly, we must strive to contribute to the communities without being a burden on them", said then-president Ogino at a meeting of the Corporate Environmental Protection Committee in June, 1993.

Today, this conviction is shared by all Minebea Group companies and serves as a guideline for environmental protection. The spirit of "contributing to the communities without being a burden on them" leads to the contribution to the global environment.

Reduction of Energy Consumption/Contribution to Prevention of Global Warming

 \bigcirc Construction of energy-saving plants (Thai Operations)

New plant for cutting and pressing process of bearings in Bang Pa-in Plant, Thailand, which started operation in June, 2008, was built with the concept of "the most energy-saving plant in the Minebea Group" Cutting and pressing are a difficult machining process as that consumes large amount of energy. Previously, every overseas manufacturing plant performed the processes from manufacturing parts to assembly. The cutting and pressing processes are consolidated in the new plant where skilled workers trained in Thailand manufacture parts, which are supplied to plants in Thailand, Singapore and the UK to increase production efficiency and to contribute to energy saving. Various measures to conserve energy were adopted to build the new plant and energy cost such as for electricity and water was reduced by approximately 45% than conventional Minebea plants.

[Measures to conserve energy adopted in the new plant]

- 1. Thermal barrier coating on the outer wall and roof of the building
- 2. Adoption of high-efficiency water-cooled turbo freezing machine
- 3. Adoption of high-efficiency air blower
- 4. Adoption of electronic ballast for fluorescent lamps
- 5. Adoption of downlight LED for outdoor lights and interior lights
- 6. Recovery of waste heat and adoption of controlling fresh air intake using CO₂ sensor
- 7. Adoption of high-efficiency transformer

The Bang Pa-in Plant won the "highest award for energy-saving controlled plant" in the "Energy Award in Thailand, 2008" held by the Thai Department of Energy in July, 2008.



Mr.Vutichai Udomkamjananan, director, receiving the highest award for energy-saving from the Minister of Energy (at right)



Energy-saving plant built in Bang Pa-in Plant, Thailand

OParticipation in CO2 reduction/light down campaign

The Ministry of the Environment conducts "CO₂ reduction/light down campaign" on the summer solstice and on the day of the star festival (July, 7) every year, suggesting that lights in light-up facilities and in offices be turned off to prevent global warming. The objective of this campaign is to experience darkness and realize how much light we use so that people familiar with illumination will think about global warming. Every plant and sales offices of the Minebea Group in Japan took part in the campaign in 2009. We designated the July 7th as simultaneous going home day throughout Japan to turn off not only outdoor lamps but also lights in offices.

[How much CO₂ emission was reduced in the Minebea Group]

 Participant: Tokyo headquarters, 18 sales offices, Karuizawa Plant, Hamamatsu Plant, Fujisawa Plant, Omori Plant NMB Electro Precision, Inc. (Sendai City) Yonago Office, Minebea Motor Manufacturing Corporation
 Amount of power consumption reduced: 1,442 kWh

Reduced amount of CO₂ emission: 639 kg of CO₂ (Equivalent to emission of about 42 households per day)

Reduction of heavy oil fuel use (Karuizawa Plant, Fujisawa Plant)

Traditionally, boilers and cold/hot water supply machines using fuel oil "A" as heat source for air conditioning have been used in various plants. However, burning of fuel oil "A" will cause carbon dioxide blamed for global warming as well as dust and nitrogen oxide that are harmful to humans to be released into the atmosphere. There is a risk of leakage of fuel oil "A" from old fuel tank, as well. We are shifting fuel of equipment from fuel oil "A" to cleaner fuel in plants simultaneously with replacement of facility. The boiler and cold/hot water supply machines using fuel oil "A" were changed into equipments using city gas in Karuizawa Plant as city gas pipes were laid around the plant and carbon dioxide emissions were reduced about 24% compared with old equipments. Minebea also replaced boiler using fuel oil "A" with sectional air conditioner in Fujisawa Plant.



CO2 reduction/Light down campaign by the Ministry of the Environment http://coolearthday.jp/index.html



Light-up illuminations in Hamamatsu Plant with lamps turned on



City gas boiler in Karuizawa Plant



Indoor sectional air conditioner newly installed in Fujisawa Plant

Prevention of water pollution and decrease of water consumption

O Achievement of zero waste water from plant and 100% recycle

Shanghai Plant and Xicen Plant are located at the lakeside of Dianshan lake, which is an important water source for Shanghai city where there is very strict standard to release factory effluent.

The two plants reused most of water treated with general effluent treatment facilities in the past and now, newly introduced "zero plant effluent system" allows to reuse all factory effluent.

No effluent is released from Shanghai Plant and Xicen Plant now and water in the plants are recycled 100%. This reduced amount of water Shanghai Plant and Xicen Plant purchase from Shanghai city approximately 44%. Memorial ceremony to celebrate the achievement of zero effluent in the two plants was held in Shanghai Plant on July 24, 2009.

[Outline of water treatment equipment in Shanghai Minebea]



100% recycle of plant effluent and reuse of rainwater (Thai Operations)

Previously Bang Pa-in Plant in Thailand treated used purchased water in general effluent treatment equipment and used part of the treated water in toilet and released the rest.

Now, "effluent reclamation equipment" is installed to make plant effluent as clean as purchased water and treated water is recycled 100%. Rainwater is also collected, treated with "rainwater recycling machine" and is used as industrial water.

Such efforts enabled Bang Pa-in Plant to reduce amount of purchased water approximately 45% than before installing the two equipments. Now, no effluent is released from Bang Pa-in Plant to outside environment. Bang Pa-in Plant and Lop Buri Plant in Thailand were selected as plants cooperating water area maintenance and protection of Chao Phraya River Protection Project and were commended by the Minister of Industry.



Mr.Kokan, mayor of Seiho ward popular government (at right) and Mr.Fujisawa, general manager of Minebea China shaking hands at the ceremony for achieving "zero plant effluent and 100% recycle" in Shanghai and Xicen plants.



Building with zero plant effluent system (Shanghai Plant)



Internal equipment of zero plant effluent system



Rainwater treatment plant and water reservoir of Bang Pa-in Plant in Thailand



Mr.Vutichai Udomkamjananan, director, commended by the Minister of Industry (at left) for "plant cooperating protection"

Promotion of 3R (Reduce, Reuse, Recycle)

Box for security guards, tables, chairs, bulletin boards are made of package waste such as wood box to reduce waste and effective use of resources in Ayutthaya Plant in Thailand.



Box for security guards made of package waste



Tables and chairs made of package waste



Bulletin board made of package waste

Proper management of waste

Periodical audit of waste disposers (Karuizawa Plant, etc.)

Minebea periodically visits waste disposers outsourced by Minebea plants and their disposal sites for checkup. Waste should be disposed until the final disposition under the responsibility of the company that disposed it in principle. Therefore, Minebea checks not only disposal condition of waste but also various items including management condition of manifest and whether contracts, license of waste disposal or other documents are free of flaws.



Periodical audit conducted in Karuizawa Plant

Rehabilitation of Contaminated Soil and Groundwater

OCleanup of contamination from organic chlorinated solvents

Since it previously used organic chlorinated solvents in its manufacturing processes, Minebea has conducted voluntarily inspections of its plants in Japan. These inspections confirmed the presence of contamination at the Karuizawa, Fujisawa and Omori plants, as well as the site of the former Ichinoseki Plant.

Minebea promptly informed local authorities and, in line with directives issued thereof, is implementing cleanup measures for soil and groundwater. Environmental education plays an important role to operate the environmental management system effectively. Minebea provide education to raise awareness or to upskill employees as well as disaster response drills to minimize human suffering in times of emergency disaster.

◎ In-house newspaper about environment "Hello Environment!"

We cannot find many instruction materials or references appropriate for encouraging employees to increase environmental awareness at hand. Based on this perspective, Environmental Protection Division of the Minebea Group began to issue "Hello Environment!" in April, 2008. The newspaper is distributed to employees in Japan and abroad (English version).

It covers not only in-house environmental issues but also tips on preserving environment in everyday life and natural environment to attract as many readers as possible.



Minebea Group environment newspaper "Hello Environment"

© Environmental education

Any corporate activity can affect environment. Therefore, the Minebea Group provides environmental education programs for all employees.

The programs range from basic environmental education such as global environmental issues and countermeasures against them to specialized education to engineers and supervisors. We also provide education to returnees and trainees from abroad and to mid-carrier workers.

© Refreshment training for in-house ISO14001 auditors

Every manufacturing base of the Minebea Group is certified according to ISO 14001 and is conducting environmental conservation activities.

In-house audit is important to check our activity to protect environment according to ISO 14001. Upskilling of in-house auditors in charge of in-house audit is inevitable to conduct the in-house audit properly.

Minebea conducts periodical refreshment training to in-house auditors to maintain or increase their abilities after they are certified in in-house training.



Environmental education to new employees by chairperson of group environment protection committee



Refreshment training for in-house auditors

O Disaster response drills (Karuizawa Plant, etc.)

The Karuizawa Plant conducts annual disaster response drills and safety training based on the premise that a major earthquake has occurred, resulting in fires and oil spillage.

We set up Disaster Response Headquarters in the immediate aftermath of the earthquake. The headquarters' first priority is to protect human life. Accordingly, its first step is to confirm the safety of employees using a specialized ID card system.

Next, water-discharge drills on the premise of fire and lessons on cardio pulmonary resuscitation and AED (Automated External Defibrillator) are conducted.



Water-discharge drills for fire-extinguishing division



Evacuation drill



Lessons on cardio pulmonary resuscitation and AED (Automated external defibrillator)



Emergency group on standby

Simulated experience with earthquake experience vehicle (Karuizawa Plant)

Employees experienced simulated earthquake in an earthquake experience vehicle of Saku Extended Association Fire Fighting Head Office in October, 2008. The vehicle can simulate past earthquakes and employees experienced intensity of past earthquakes. The experience made us feel that precautions are necessary to decrease damage.



Simulated experience with earthquake experience vehicle

The Minebea Group provides extensive information on its environmental preservation activities to the public via its web site and its environmental report. The Group also actively solicits the options of its employees and incorporates them into its environmental activities.

© Environment click fund-raising (Fujisawa Plant)

Our Fujisawa Plant is located in Fujisawa city, which has web site of "Fujisawa city environment click fund-raising" with the aim of "increase of citizens' awareness on environment", "public relations activities of companies contributing to society" and "fulfillment of environmental education for children who will be major players in the next generation"

People browsing pages for introducing environmental activities of a sponsor company can click "contribution" icon and the company will donate 5 yen per click. The donated money will be used for education materials or the like for environmental educations in schools in Fujisawa city.

Minebea supports the campaign of Fujisawa city.

© Environment week exhibition (Thai Operations)

The Thai Operations visit plants and hold "environment week exhibition" from November to December every year.

The exhibition introduces environmental protection activities of Thai Operations, government and private organizations to help raise awareness of employees greatly.

Slogan and composition competitions for "countermeasures for global warming under mutual cooperation of families of Minebea employees" and "public relations bulletin competition with the theme of environment and energy" for divisions in Thai Operations were held in 2008.



Site showing pages of Fujisawa city environment click fund-raising for Minebea

[Fujisawa city environment click fund-raising] http://fj4.city.fujisawa.kanagawa.jp/oneclick/index.php



Environment week exhibition



Public relations bulletin for divisions displayed in the competition

O Summer festival in Fujisawa Plant

The Fujisawa Plant holds an annual summer festival before summer vacation.

We not only announce to employees and their family but also to nearby residents and many participants enjoy various events including booth shops, interdivisional event, games, performance of bands and bingo game.



Summer festival in Fujisawa Plant

OPublication of the Minebea Group Environmental Report

In recent years, companies have come under increasing pressure to disclose information on their efforts to incorporate environmental protection into their business activities.

Minebea has published its first annual Group environmental report since 2003.

To ensure that the reports are as useful and informative as possible, Minebea discloses information in accordance with the "Environmental Reporting Guidelines" by Japanese Ministry of the Environment and "Sustainability Reporting Guidelines Version 3.0" by Global Reporting Initiative (GRI).

Information on environmental efforts on the Minebea web site

The Minebea web site features information on current environmental protection efforts, as well as Minebea's Environmental Protection Principles and a history of efforts to date.

http://www.minebea.co.jp/environment/index.html

For inquiries and comments on Minebea's environmental efforts, please see the back cover of this report.



Minebea Group Environmental Report 2008



Top page of Minebea's website covering environmental protection activities

As members of the communities in which they operate, companies must communicate and work with national and municipal authorities, educational institutions and other organizations to promote efforts that contribute to society.

Shanghai Minebea Dianshan lake environmental protection fund (Shanghai Operations)

Minebea has established "Sanghai Minebea Dianshan lake environmental protection fund" aimed to maintain water quality of the Dianshan lake close to Shanghai Minebea on April 20, 1996. The total amount of the fund is 11,600,000 yuan (approximately 166 million yen) as of end of July, 2009 and its interest is used for dredging and afforestation or the like in river around plants.

Utilization of the fund for maintenance of treatment facility for miscellaneous drainage of housings in fishing village around the Dianshan lake.

Operation of weight scales for wheel chairs (Fujisawa Plant, Karuizawa Plant)

Minebea donated weight scales for wheel chairs to Fujisawa city in Kanagawa prefecture in February, 2009 and to Miyota-machi in Nagano prefecture in April, 2009. Measuring Components Business Unit of

Minebea designed and manufactured the scale to allow measurement of body weight without getting off a wheel chair.

The donated weight scales for wheel chairs are used in welfare facilities, sport facilities, or the like.



Weight scales for wheel chairs designed and manufactured by Minebea



River with bank protection work completed with the fund



Presentation of list to the mayor of Fujisawa city (at right) Presenter: Mr.Niijima, division manager (Measurement instrument division)

Participation in local volunteer activities (NMB Electro Precision, Inc., Japan)

Employees of NMB Electro Precision, Inc. took part in the "6th kokeshi forestation project" held by Agriculture and forestry department, economic affairs bureau of Sendai city as part of "Forestation-for-all project" as members of citizen volunteers on May 24, 2008. Approximately 1,500 saplings were planted including cornel, wild cherry tree and painted maple with 256 people including citizen volunteers in Yumoto-uehara city forest adjacent to Akiu onsen, which is a popular hot spring in Sendai.



Employees of NMB Electro Precision, Inc. and their family taking part in the Forestation-for-all project in Sendai city

© Education support program for children in Thailand(Thai Operations)

Takahashi Fund that supports schools and students in Thailand was established in 1992 with donation in commemoration of 10th anniversary of Thai Minebea Group.

It donated an "environment corner" in the library of the Wat La Shadow School in Ayutthaya Province in 2008. The corner contains environment-oriented items such as environment board, bookshelf and miniature garden so that children will be interested in environment protection.

Composition competition under the theme of "prevention of global warming" in order to maintain awareness of environment and energy protection" for students were also held on the day of the donation.



Books donated by Minebea

Promotion of amateur sport Operation support of "Curling hall Miyota"

Minebea supports operation of local sport club "Curling hall Miyota" in Miyota-machi, Nagano prefecture. Minebea donated bench coats to curling players in Nagano prefecture such as male team "SC Karuizawa" and female team "Team Nagano". Symbol mark of the Miyota-machi composed of gold-banded lily and Mount Asama is printed on the back of the coat.



Environment corner in the Wat La Shadow School



Students of the Wat La Shadow School and employees of Minebea



Players in Nagano prefecture performing brilliantly in Karuizawa International Curling Championship (2009)



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Additional information on Minebea's environmental efforts is available in English at: http://www.minebea.co.jp/english/environment/activities/index.html





Minebea Co., Ltd. supports "the KIZUKAI-UNDOH (Wood Products Utilization Campaign)" promoted by the Forestry Agency because we think it is important to positively use domestic timber and grow the forest in Japan. The domestic timber is used as papermaking material for producing this booklet, and it contributes to expand carbon absorption of the domestic forest.

This report is printed on paper of pulp obtained from wood certified and controlled by FSC (Forest Stewardship Council), using "soybean oil-based ink", 100% vegetable oil free from VOC (Volatile Organic Compound). We support "the KIZUKAI-UNDOH (Wood Products Utilization Campaign "promoted by the Forestry Agency by employing "3.9 paper system" as well.

-(2)-06000

GREENSTYLE