



Nippon Mining Holdings Group  
**CSR Report 2009**



**NIPPON MINING HOLDINGS, INC.**

The Nippon Mining Holdings Group strives to achieve a stable and efficient supply of and the effective utilization of resources, materials and energy, while contributing to the creation of a better environment and a sustainable society.

# Made in Japanの資源。

私たち新日鉱グループは、ジャパンエナジー（JOMO）による石油事業と、日鉱金属による非鉄金属事業のふたつを事業のカナメとして、持株会社・新日鉱ホールディングスのもとグローバルに事業展開しています。資源小国日本にあって、資源・素材・エネルギーの安定的・効率的供給を支えるという大事な使命を果たすとともに、地球環境に配慮しつつ、限りある資源の有効利用に力を尽くしています。

やっぱり笑顔がエネルギー。  
Value Styleの  
JOMOステーション。

行ってみたくなる・入りたくなる・また来たくなる。そういうSSをめざして、ここちよい空間+最高のおもてなしをお届けします。

ValueStyle



地球の裏側でも、  
いい銅鉱山を  
見つけました。



チリを中心とする海外の優良銅鉱山  
開発プロジェクトに参加しています。



アスファルトから生まれた  
ガソリンもあります。

アスファルトなどの重質油を高温で加熱分解し  
ガソリン・灯油・軽油を生産しています。



日本の銅の約40%を  
生産しています。

日本ではもちろん第1位、世界でも  
第2位グループを形成しています。



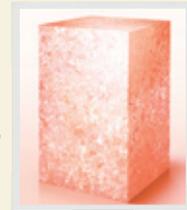
地下数千メートルの  
石油にめぐり会う瞬間。

日本及び世界各地で、石油・天然ガスの  
探鉱・開発を推進しています。



99.9999999%の  
超高純度銅です。

10億人の中から  
一人を選び出すようなもので、  
もはや不純物量を分析  
できないほどのレベルです。



100万トンのパラキシレンから  
ポリエステルシャツ120億枚。  
ペットボトル580億本。

ジャパンエナジーグループ全体の  
パラキシレン年間生産能力は  
約100万トンで、世界第3位です。  
(外部販売数量)



都市の資源を  
とことん活かす。  
「都市鉱山」開発計画。

携帯電話などの廃棄物は、貴重な金属や  
レアメタルの宝庫。年間約200万台の携帯電話を  
リサイクルして、この眠った資源を有効活用。



廃プラスチック→石油→  
プラスチック  
いい循環が始まっています。

2004年から、廃プラスチック油の  
再生処理に取り組んでいます。  
実用化したのは国内石油会社として初めて。



これからのIT進化を  
支えていくのは、  
進化する銅です。

携帯電話などに使われている圧延銅箔では、  
ダントツの世界シェア70%。  
デジタル時代の銅は、資源のヒーローです。



## 石油も、銅も。新日鉱ホールディングス



JOMO / ジャパンエナジー



日鉱金属

## Editorial policy

Since fiscal 2005, the Nippon Mining Holdings Group has annually published a "Social & Environmental Report" summarizing the Group's activities in the field of corporate social responsibility (CSR). In 2008, reflecting the creation of a system to promote CSR throughout the Group, we have renamed the report the "CSR Report" and enhanced its content.

The CSR Report describes the Nippon Mining Holdings Group's business activities from a CSR perspective, and it also aims to convey our policies and approaches to all stakeholders, including shareholders and other investors, customers, business partners, employees and society as a whole, in order to proactively address their needs.

This report also serves as a summary of the CSR reports issued by our two core operating companies—Japan Energy Corporation and Nippon Mining & Metals Co., Ltd.

Related reports can be downloaded from the websites of the respective companies.

Nippon Mining Holdings Group—CSR Report 2009

<http://www.shinnikko-hd.co.jp/english/csr/>

Nippon Mining Holdings, Inc.—Annual Report 2009

<http://www.shinnikko-hd.co.jp/english/ir/library/annual/2009/>

Japan Energy Corporation—CSR Report 2009

<http://www.j-energy.co.jp/english/csr/>

Nippon Mining & Metals Co., Ltd.—Sustainability Report 2009

<http://www.nikko-metal.co.jp/e/sustainability/index.html>

### Report overview

#### Reporting Period

April 2008 to March 2009

(Some information from before or after this period has been included as necessary.)

#### Boundary of the report

##### Implementation of environmental management

- (1) The Japan Energy Group and its three principal affiliated companies
- (2) The Nippon Mining & Metals Group and its 28 affiliates
- (3) Toho Titanium (Head office)

New data on fiscal 2008 includes figures for Japan Energy Development (included in (1) above) and for Toho Titanium.

##### Together with stakeholders

Scope of business activities at Nippon Mining Holdings and functional support companies, and scope of reporting in Japan Energy's CSR Report 2009 and Nippon Mining & Metals' Sustainability Report 2009.

#### Guidelines used as reference

##### Both petroleum business and metals business

- GRI's (Global Reporting Initiative) Sustainability Reporting Guidelines, Version 3.0

##### Petroleum business

- The Ministry of the Environment's Environmental Accounting Guidelines 2007 and the Study on the Japan Petroleum Energy Center's Introduction of Environmental Accounting in the Petroleum Industry 2000

##### Metals business

- The GRI Mining and Metals Sector Supplement and the 10 sustainable development principles of the International Council on Mining and Metals (ICMM)

### Notes concerning forward-looking statements

This material includes Nippon Mining Holdings' future plans, strategies, earnings forecast and outlook. Information in this material comprises not only facts that have occurred, but also forecasts, assumptions and opinions based on available information as of June 25, 2009. This includes unlimited risks and uncertainties related to economic conditions, severe competition in the industry, market demand, foreign exchange rates, the tax system and other regulations. Please note, therefore, that actual results may differ from forecasts described in this material.

This report is a translation of the CSR Report 2009 written in Japanese, which was published in September 2009.

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**We view CSR as an integral part of our business activities.**

**Through our business activities in the fields of resources, materials, and energy, we are working to improve the environment and contribute to the creation of a sustainable society.**



Mitsunori Takahagi  
President and Chief Executive Officer

### **What are the strengths of the Nippon Mining Holdings Group?**

For more than 100 years, we have consistently and dynamically developed businesses related to “the Earth’s resources” on the world stage. These businesses include the fields of petroleum (Japan Energy) and metals (Nippon Mining & Metals). Since our earliest days at the Hitachi Mine, we have been committed to addressing the problem of air pollution (through the construction of “the Giant Stack,” a large smokestack, and so on). Our traditional corporate stance is to achieve growth through our business activities together with our various stakeholders, while simultaneously promoting the advancement of society at large.

In fiscal 2008, the unprecedented U.S. financial crisis led to the current global economic slowdown. During the term, crude oil and copper prices surged to record-high levels, and then plunged to one-fourth that level, before resuming their upward climb. Such dramatic fluctuations are completely new territory for us. Needless to say, the future direction of the economy remains unclear. Meanwhile, the supply and demand situation in China and the other emerging economies is expected to have an even larger impact going forward. We expect restrictions on the supply side by resource-producing countries, amid rising geopolitical risks, an increase in the number of non-major resources companies, fueled by rising nationalism regarding resources, and the increased monopolization of resources by the leading companies supplying raw materials. Taking into consideration these various factors, it is difficult to predict how this situation will evolve in the future. Furthermore, with regard to global warming and other environmental problems, we are required to provide responses as both global and local citizens.

Against this backdrop, we will work diligently to fulfill our Group Mission of “striving to achieve a stable and efficient supply and the effective utilization of resources, materials and energy, while contributing to the creation of a better environment and a sustainable society,” as we recognize the importance of this contribution to society.

### **What is the positioning of CSR activities within the Nippon Mining Holdings Group?**

Within the Nippon Mining Holdings Group, Nippon Mining Holdings, Inc. operates as a pure holding company. The Company’s basic policy with regard to corporate governance is to maintain effective control over Group operations and ensure

management transparency by keeping operations separate from Group management through the holding company system.

In the "Long-Term Vision towards Fiscal 2015," drafted in May 2008, we outlined the strategies targeting future growth and enhanced stability by which we aim to become a global leading company. The basic policy is to: 1) create the optimal portfolio in the two fields of petroleum and metals; 2) make CSR and environmental preservation a top management priority; and 3) strengthen the Group's capabilities for innovation. Thus, we have clearly indicated CSR as a top management priority. In addition to implementing ongoing initiatives, the Group will work to further raise enterprise value by developing new technologies and creating new businesses.

Regarding the training of personnel who will be responsible for promoting CSR, we will expand our training program, which includes the rotation of personnel from both of the core operating companies (Japan Energy and Nippon Mining & Metals). To systematically cultivate future group managers, we are developing human resources through programs such as the Groupwide Nippon Mining Management College.

With regard to CSR, we will continue to implement and conduct measures on an ongoing basis to ensure that adequate attention is being given to compliance, safety, disaster prevention, and environmental preservation issues, as we view these to be an essential part of our business operations.

The Nippon Mining Group will continue promoting the implementation of CSR activities with the recognition that CSR is integral to our business operations.

### What were the Group's achievements with regard to CSR in fiscal 2008?

The Nippon Mining Group CSR Committee was launched in April 2008, thereby establishing a system by which to implement CSR groupwide. The committee, which meets once every six months, reports on the Group's CSR activities and undertakes the necessary follow-up activities. Nippon Mining Holdings Group companies signed on as participants of the United Nations Global Compact in August 2008, indicating the Group's support for the Global Compact. The Group endorses and supports the Global Compact's ten principles in the areas of human rights, labor, the environment and anti-corruption.

Regarding initiatives on global environmental issues, the scope of the medium-term environmental plans of the two core operating companies has been broadened, and the numerical targets have been revised.

In the preparation for our CSR Report 2009, we made improvements and expanded the content of the previous year's report in response to feedback from Ms. Mizue Tsukushi, President and CEO of The Good Bankers Co., Ltd. and Japan's leading authority on socially responsible investment (SRI). We received third-party assurance for our environmental performance indicators from the Ernst & Young ShinNihon Sustainability Institute, and this has helped to raise the objectivity and reliability of the report. The Group's other environmental initiatives include ongoing forest preservation activities, the hosting of Japan Energy's long-running children's story contest (JOMO Children's Story Award), the operation of the JOMO Children's Story Fund, sponsorship of JOMO Basketball Clinics and sports for physically disabled persons, as well as the extension of support for the

activities of an NPO.

Since fiscal 2008, Nippon Mining Holdings has been selected for inclusion in the calculation of several socially responsible investment (SRI) indices. The inclusion of the Company's shares attests to the high esteem in which the Group's sound financial, environmental and social performance are held, and the high expectation for the Group's realization of sustainable growth.

In the future, we will continue to expand CSR activities, and further strengthen CSR overall.

### What kind of corporate group does Nippon Mining Holdings aim to become following the management integration with Nippon Oil Corporation?

In December 2008, Nippon Mining Holdings reached a basic agreement with Nippon Oil Corporation on management integration of the two corporate groups. This decision was based on recognition by both groups that the most effective way to reinforce our management bases in order to seize the initiative in the face of structural changes in our operating environment and to survive against increasingly intense competition is to integrate our management resources on an equal footing. Not only will the newly integrated group be the clear leader in terms of both scale and competitiveness in the Japanese petroleum industry, but by combining this position with the high-earnings and growth potential of the Metals business, we are determined to achieve dramatic growth and enhance enterprise value as a comprehensive energy, resources and materials group with a strong international presence. We believe the management integration will further enhance the feasibility of the fundamental strategies articulated by the Long-Term Vision towards Fiscal 2015, which we announced in May 2008.

Under the basic philosophy of the integrated Group, we will pursue harmony between our business operations and the global environment, as well as society at large, with the aim of contributing to the establishment and development of a sustainable economy and society. Thus, we will work to embody the philosophy of the Nippon Mining Holdings Group, which will remain unchanged following the management integration with Nippon Oil.

As mentioned earlier, the Nippon Mining Holdings Group has been working to resolve problems relating to air pollution from its earliest days. We are making earnest efforts to limit the burden that our business activities place on the environment. We are also committed to achieving the speedy implementation of various measures to realize the aspirations expressed in our management philosophy for the entire Group.

We look forward to the continued support and encouragement of all our stakeholders, including shareholders, customers, business partners and local communities.

September 2009



Mitsunori Takahagi  
President and Chief Executive Officer

# Nippon Mining Holdings Group Overview

## Businesses

Company profile (as of March 31, 2009)

Corporate name	Nippon Mining Holdings, Inc.
Head office	10-1 Toranomon 2-chome, Minato-ku, Tokyo, Japan 105-0001
Founded	September 27, 2002 (originally established December 26, 1905)
Capital	¥73.92 billion
Listed exchanges	Tokyo, Osaka, Nagoya (all First Section; code 5016)

Net sales	¥4,065.1 billion (FY2008, consolidated)
Total assets	¥1,886.1 billion (consolidated)
Group companies	122 (consolidated subsidiaries and equity-method affiliates)
Group employees	10,729 (consolidated basis)

### Petroleum business Japan Energy Group

#### Upstream

##### Exploration and development

Equity-based entitlement volume  
(crude oil equivalent)

**15,000** barrels / day



#### Midstream

##### Refining

Refining capacity  
(including condensate processing capacity)

**475,000** barrels / day



##### Marketing

Domestic market share

**11%**  
(No. 6 in domestic market)



#### Downstream

##### Petrochemicals

Production capacity of paraxylene

**1,020** thousand tons / year



### Metals business Nippon Mining & Metals Group

#### Upstream

##### Resources development

Equity-based entitlement volume  
(copper equivalent)

Approximately **90,000** tons / year



#### Midstream

##### Copper smelting and refining

Smelting and refining capacity

**1.17** million tons / year\*



#### Downstream

##### Electronic materials

**The world's top share in our main products**



##### Recycling and environmental services

**Efficient recovery of value-bearing metals**



##### Polysilicon for solar power generation

**High-quality, low-cost**

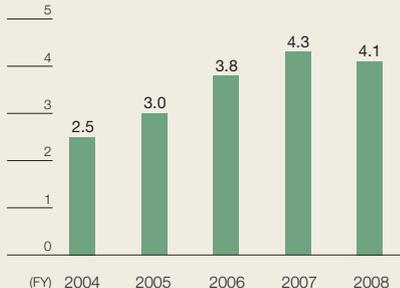


\* Total production capacity: Pan Pacific Copper Co., Ltd. (joint venture with Mitsui Mining & Smelting Co., Ltd.; Nippon Mining & Metals holds a 66% equity stake.) — 610,000 tons / year; LS-Nikko Copper Inc. — 560,000 tons / year

## Business performance on a consolidated basis

### Net Sales

(Trillions of yen)



### Income (loss) before special items

(Billions of yen)



### Net Income (loss)

(Billions of yen)

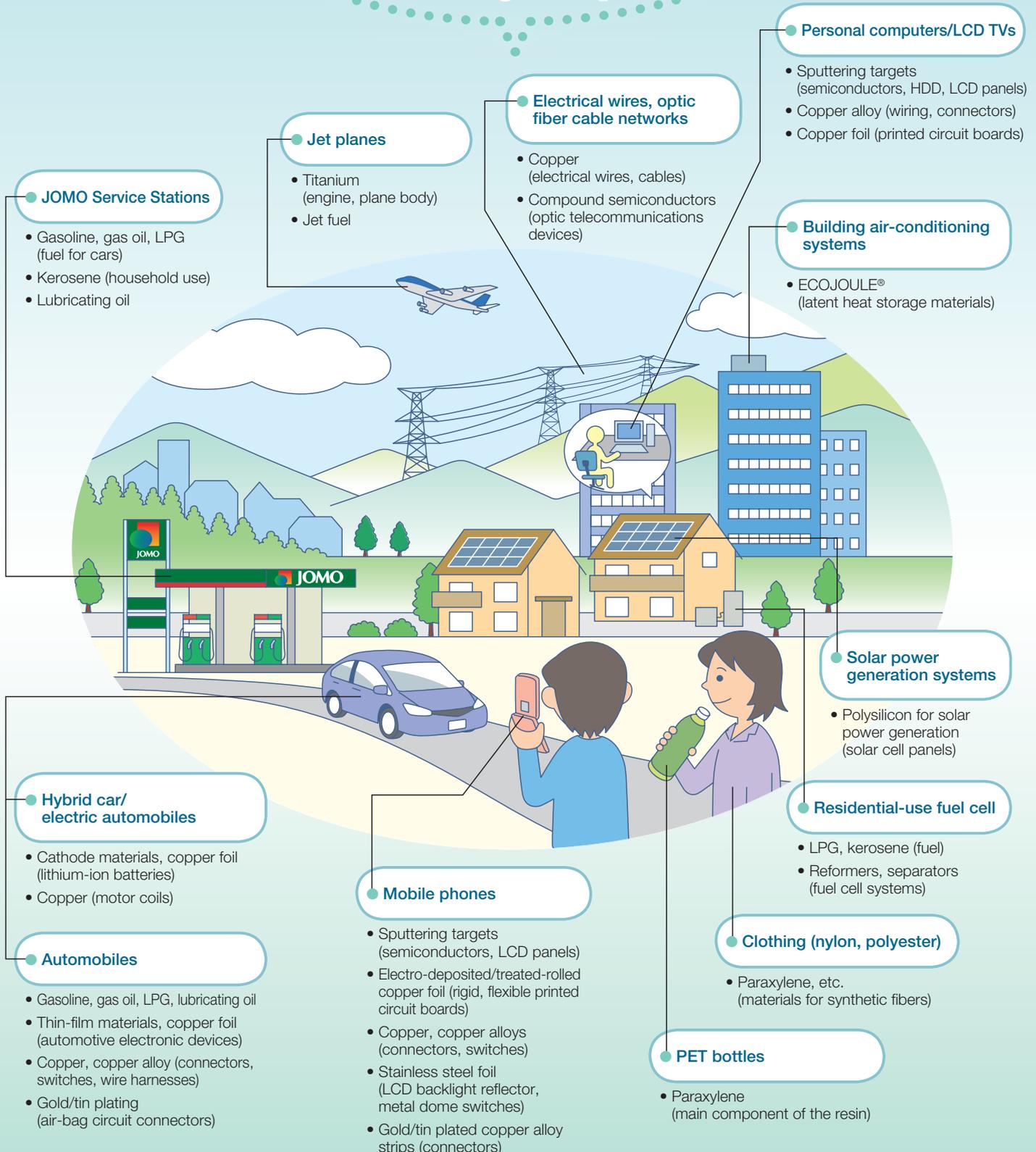


For more details regarding business performance, please visit our website.

<http://www.shinnikko-hd.co.jp/english/ir/>

# Supplying a wide variety of resources, materials and energy sources to various members of society

## Products of the Nippon Mining Holdings Group



# The Nippon Mining Holdings Group's Approach to CSR

In April 2008, the Nippon Mining Holdings drafted a new, broad mission statement for the Group as a whole, which includes within its scope the mission statement of the Japan Energy Group and the corporate philosophy of the Nippon Mining & Metals Group. Then, in May 2008, we drafted our Long-Term Vision towards Fiscal 2015, which details the Group's strategy for achieving stable growth. One of the basic policies under this vision is the designation of CSR and environment-related issues as a management priority.

## Nippon Mining Holdings Group Mission

The Nippon Mining Holdings Group strives to achieve a stable and efficient supply of and the effective utilization of resources, materials and energy, while contributing to the creation of a better environment and a sustainable society.

### Japan Energy's Mission

We Create Energy for a more cohesive and dynamic society.

We activate the natural **Energy in People**, placing a high value on individual imagination and creativity.

We use **the Energy of the Earth** wisely, fully aware that the global environment forms the basis for mankind's present and future existence.

We enhance **the Energy of Society** by continually improving corporate performance and credibility, and discharging responsibility as a corporate citizen to discover new values and additional areas of growth.

### Nippon Mining & Metals Corporate Philosophy

We are committed to assisting the sustainable development of society. Innovation in the productivity of resources and materials and a harmonious relationship with our stakeholders are our way of contributing to the achievement of this goal.

Ensuring a stable supply of non-ferrous resources and materials is our social mission. We are engaged in a wide range of operations from exploration, mining, smelting and refining to metal fabrication and electronic materials production. In all aspects of our operations from development, production and marketing, we will continue to pursue technical rationality and efficiency and make improvements in quality & product properties and other matters. We will continue to promote recycling of resources and materials to achieve zero emission. This is our way of achieving continuous innovation in the productivity of resources and materials.

In the conduct of our business, we are committed to maintaining and enhancing a harmonious relationship with a wide range of stakeholders, including our customers and the communities in which we operate.

We are committed to contributing to the sustainable development of society on a global scale.

\* Based on the mission statement of the Nippon Mining Holdings Group, the Japan Energy Group has established its Business Principles and the Nippon Mining & Metals Group has established its Code of Corporate Conduct, which are the basis for the daily business activities that are the foundation of our CSR.

## Overview of the Long-Term Vision towards Fiscal 2015

### Vision

Create an optimal business portfolio covering the petroleum and metals businesses, with the aim of becoming an outstanding global company with sustainable growth capabilities, stable profitability, and a strong financial position.

### Basic policy

Optimal business portfolio  
CSR and environment  
Innovation

### Basic strategy

We aim to realize a dramatic enhancement in cost-competitiveness in the Group's midstream activities of petroleum refining and marketing, and copper smelting & refining. In upstream activities, we will invest in resource development, where significant returns on investment can be expected. In downstream activities, we will invest in petrochemicals, electronic materials, metals recycling and the eco business, taking advantage of our competitive superiority. We will also make titanium and polysilicon for solar power generation the targets of priority investment. Through these measures, we will endeavor to create a strong earnings structure capable of withstanding deterioration in overall market conditions.

For further details of the Long-Term Vision towards Fiscal 2015, please visit our website. <http://www.shinnikko-hd.co.jp/english/ir/>

Nippon Oil Corporation President Shinji Nishio (left) shakes hands with President Mitsunori Takahagi (right) of Nippon Mining Holdings at the press conference held in December 2008 to announce the two companies' plans for management integration.

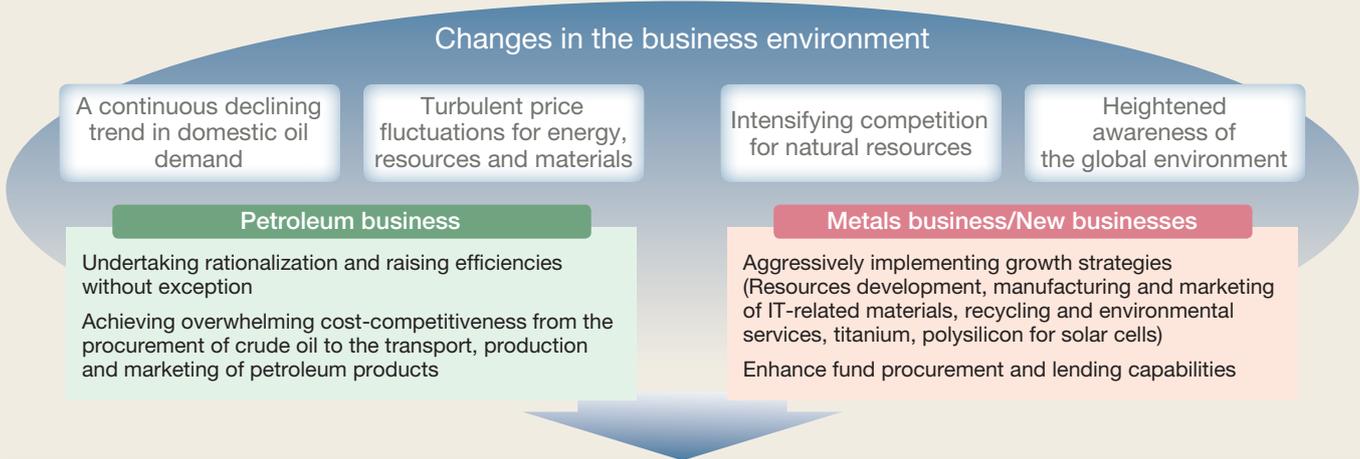


## Management Integration of Nippon Mining Holdings and Nippon Oil Corporation

### To accelerate the achievement of basic strategies under the “Long-Term Vision towards Fiscal 2015,” and expand into growth fields and new businesses

In December 2008, the management of Nippon Mining Holdings and Nippon Oil Corporation signed a Basic Memorandum on Management Integration. The details are as follows.

### Background and Objectives of the Management Integration



#### (Objectives of Management Integration)

- Preempting fundamental structural changes in the business environment and ensuring the highest level of success amid intensifying competition
- Reinforcing management structures through integration of management resources and pursuing sustainable growth and development under our new management policy
- Contributing to Japan's future in the fields of energy, resources and materials, which have a significant impact on Japan's national security

### Basic Concepts of the Management Integration

- 1 Become one of the world's leading integrated energy, resources and materials groups
- 2 Maximize corporate value under the keyword “Best Practice”
- 3 Undertake a comprehensive restructuring of the Petroleum Refining & Marketing Sector at an early stage

### Effects of the Management Integration



\* Estimated savings attributable to cost-cutting through synergies resulting from management integration.

#### Basic Group Philosophy After Integration

- 1 As a group operating in the areas of energy, resources and materials, we will pursue harmonious coexistence with the global environment and society at large by establishing sound and transparent corporate governance and appropriate and flexible operating structures, thus contributing to the establishment and development of a sustainable economy and society.
- 2 Under a vertically integrated operating structure, we will pursue a stable and efficient supply of products and while seeking innovative and creative approaches to our operations.

For more details regarding the management integration, please visit our website.

<http://www.shinnikko-hd.co.jp/english/ir/>

Flexible approaches utilizing accumulated technological expertise enable us to create epoch-making systems for more effective utilization of resources, materials, and energy, as well as to reduce environmental impact. Following are our latest initiatives to create a low-carbon, recycling-oriented society.

## Toward a low-carbon society

### Highly energy-efficient thermal latent heat storage materials

Katsuya Hayashi  
Engineer  
Petrochemicals Department  
Japan Energy Corporation

Expanding applications  
for ECOJOULE®  
with the customer's  
needs in mind



Normal paraffin, the principal raw material from which ECOJOULE® is made was originally sold as a raw material for detergents. At that time, researchers noted the practical possibilities of utilizing the phenomenon whereby stored thermal energy was released when normal paraffin underwent a phase change from a liquid to a solid state (solidifying), while conversely, thermal energy is stored when the material changes from a solid to a liquid state (melting). Development work on this substance as a latent heat storage material took off in the 1990s under the impetus of the environmental preservation movement. The turning point from a technological perspective occurred when developers were able to process normal paraffin so that it could be classified as a non-dangerous substance. (As normal paraffin is extracted from kerosene, it is usually classified as a dangerous petroleum product.) Thanks to this, it became much easier to handle and the developers were able to ensure stability and uniformity, which are the principal characteristics of normal paraffin.

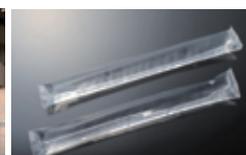
The most common use of normal paraffin products at present is in air-conditioning systems for buildings, but in conversations with customers, I have received requests for a wide range of other applications. Thus far, Japan Energy is the only company to have produced a commercial product by subjecting normal paraffin to careful processing, and I believe it is our mission to respond to the diverse range of requests we have received from our customers by developing viable new applications for this substance. Applications in the frame include use in vehicle engine-cooling systems when idling, and in residential air-conditioning through the storage of thermal energy from natural energy sources or low-cost nighttime electricity. We are conducting research into these and many other potential applications and commercialization of vehicle-use applications is already in sight. I intend to continue working to develop effective methods of energy conservation and CO<sub>2</sub> reduction through the use of ECOJOULE®, never taking my eyes off our customers' needs.

### Latent heat storage material ECOJOULE® – Saving energy in air-conditioning of buildings, and helping reduce CO<sub>2</sub> emissions –

The latent heat storage material ECOJOULE®, which was launched on the market by Japan Energy Corporation in July 2008, is in use as a thermal energy storage material in air-conditioning systems for large buildings. These systems allow the use of comparatively cheap nighttime electricity to store “thermal energy” in the form of ice, which is then used to cool the building during the day, enabling a reduction in consumption of peak-time electric power. The use of ECOJOULE® in such air-conditioning systems realizes much greater energy efficiency than the use of water or other materials previously employed reducing electricity costs and as well as CO<sub>2</sub> emissions.

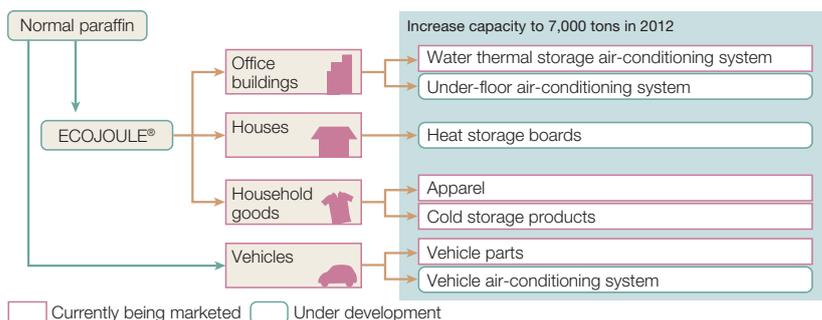


The ECOJOULE® booth at a trade fair



ECOJOULE® in stick form

#### Development of applications for ECOJOULE®



## Mass-production of polysilicon for solar power generation

**Yoshitaka Kitagawa**  
Senior Manager  
Temporary Construction Division  
Japan Solar Silicon Co., Ltd.



**Building the world's  
first plant to employ  
our proprietary process**

**Yoshiki Iwata**  
Senior Manager  
Temporary Construction Division  
Japan Solar Silicon Co., Ltd.



I am in charge of the management of a project to design and construct a manufacturing plant employing facilities that are the fruit of the combined technological expertise of the Chisso Group and the Nippon Mining Holdings Group. Our job is to integrate the two groups' proprietary technologies through collaboration between their respective engineering companies, so as to create a single "package" of mass-production facilities. During my work on this task I have been astonished at the high level of the basic technologies possessed by companies belonging to the two Groups. When it is completed, the plant will be a showcase for our capabilities in terms of product performance, low-cost operation, and safety, as well as our ability to perform the task on schedule.

Construction started in April of this year, and first-stage facilities are scheduled to start operations in April 2010. As these facilities will form the core of the entire mass-production process, we have to get everything just right to permit future increases in production capacity. We must first construct and operate a test plant to verify the process, following which we will have to perform test runs with the actual facilities to ensure that commercial production goes as desired. Although we are operating within a limited time-frame, we are striving to elevate the precision of our team management through the accumulation of minor decisions thereby ensuring that we make the right decision when it is really matters.

Our goal is the creation of a polysilicon mass-production plant employing our proprietary technologies, thereby realizing the world's first process for this material. Following the scheduled completion of construction next spring, we will be conducting further development and verification work, but the real struggle starts now! We must mentally prepare ourselves to achieve steady progress day after day.

We are currently refining the various technologies needed for commercial production, and carrying out tests to verify that we possess the required degree of precision. We are also simultaneously developing next-generation technologies. We are conducting development work on three fronts: 1) seeking applications for existing technologies, 2) further refining our development of proprietary technologies, and 3) carrying out simulations of the practical application of technologies. In some cases two months are required to examine just one theme, but we conduct development work on several different themes in parallel. We always place top priority on safety, particularly when assembling large-scale sets of equipment, and the test results are immediately fed back into the design process.

In the development process, through discussions with engineers dispatched by the companies involved, I have come to realize the depth of knowledge and expertise that each company possesses in its respective technological field, and this has been a significant gain. Both the companies of the Chisso Group and those of the Nippon Mining Holdings Group have long histories, and their organizational cultures differ. However, it is this very difference that gives birth to a wealth of new ideas. Bringing together participants with different funds of experience into one team enables us to utilize an extremely high potential for development work. It also helps clarify the technological issues we face and their order of priority. It is important to rapidly share information on the results of whatever development work we carry out.

It will not be easy to overcome the technological hurdles we face, but on the other hand, working as a team as we do, there is a strong and growing sense of unity among us as we take each step closer to the ultimate goal. This makes everything worthwhile. Among the many development themes that we will be tackling, making a significant contribution to the start-up of the new plant with an annual production capacity of 660 tons has first priority.

### Reliable supply of high-quality polysilicon at low cost

In January 2007, Nippon Mining Holdings, Chisso Corporation, and Toho Titanium began verification testing of a polysilicon manufacturing technology for solar power generation that uses a proprietary zinc-reduction method. In June 2008 the three companies established Japan Solar Silicon Co., Ltd. (JSS)\*1, and decided to invest approximately ¥30 billion in the construction of a manufacturing plant within the Kashima industrial complex in Ibaraki Prefecture.

First-stage work on this plant involves the construction by the end of fiscal 2010 of manufacturing facilities (one production line) with an annual production capacity of 660 tons. In the second stage, the facilities will be further expanded to bring annual capacity to 4,500 tons\*2 by the end of fiscal 2013. Beyond that, we are eyeing the eventual expansion of capacity to 10,000 tons per annum.

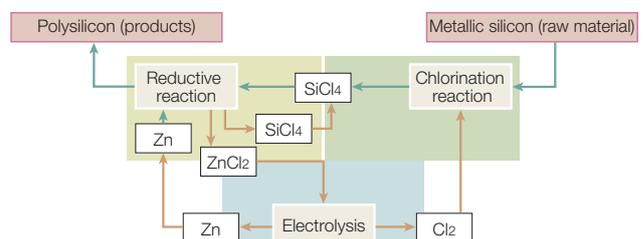
\*1 Equity stakes are 50% for Chisso, 30% for Nippon Mining Holdings (equity shares transferred to Nippon Mining & Metals in April 2009), and 20% for Toho Titanium.

\*2 In terms of contribution to the prevention of global warming, 4,500 tons of polysilicon used in solar power generation would translate into 450,000 kilowatts of power, and the entire production and generation process would reduce CO<sub>2</sub> emissions by approximately 300,000 tons compared with the generation of the same amount of power by an oil-fired power station (estimated by the Company).



The Kashima plant under construction

### Polysilicon production via the JSS Method (proprietary method of Japan Solar Silicon)



## R&D in the field of fuel cell systems

Japan Energy has been working on technological development in the field of solid oxide fuel cells (SOFC) since 2004. One of the main reasons for embarking on this development work was that it promises a clean and efficient way of utilizing oil resources, and this is one of the key issues that oil companies have been tackling. Another reason is that Japan is a global leader in the high-precision ceramics manufacturing technology that is required for SOFC systems. This development work was first carried out from fiscal 2005 to fiscal 2007 as part of R&D into the use of the advanced fuel-use project promoted by the Japan Petroleum Energy Center, and since fiscal 2008 Japan Energy has been developing its own system.

The main technological issue is how to design the system so as to make efficient use of the high-temperature exhaust heat energy released within the system. Here, a crucial role is played by design and development of various individual pieces of equipment, taking into account the need for total optimization of the system as a whole. I believe it will take quite some time to complete the development of a practical SOFC system, but as the project manager I am putting my full efforts into ensuring clear communication between different units of our Company as well as with collaborating researchers outside the Company, thereby ensuring that we are always on the same page. We must not be afraid of failure; if we believe in the eventual success of our efforts, we will be able to make a truly valuable contribution to society.

### The motivation to turn failure into the seeds of success

Yoshinori Yamazaki  
Chief Engineer  
Business Development  
Department  
Japan Energy Corporation



working on systems for removing sulfur from kerosene to pave the way for a hydrogen production process for next-generation solid oxide fuel cells (SOFCs). We are also working to develop reforming catalysts, in preparation for the coming age in which fuel cells will become standard.

### Supplying hydrogen for fuel cell vehicles

Japan Energy is also taking part in the Japanese government's Japan Hydrogen & Fuel Cell Demonstration Project (JHFC), and is operating a mobile hydrogen refueling station in the Funabashi district of Chiba Prefecture as part of overall moves to create a hydrogen refueling infrastructure for fuel-cell vehicles.

Other efforts by Japan Energy to support the spread of a hydrogen refueling infrastructure include continued R&D into efficient, compact "reforming reactors" that employ hydrogen separation membranes, and the "organic hydride method" for safely storing and supplying hydrogen in liquid form.



Mobile hydrogen station

### Development of titanium separators for fuel cells

The functions of a separator are to supply fuel and air to the electrolyte film of a battery, collect the generated electric power from the film, and conduct the power to the power collector. The Nippon Mining & Metals Group has confirmed that the characteristics required of fuel cells such as high-corrosion resistance and low-contact resistance can be achieved by forming a thin film of precious metals\* on the surface of the titanium substrate. Since a titanium separator is lightweight, application in batteries for mobile phones is highly probable. We are currently developing this technology to meet evolving customer needs.

\* The films are several nanometers in thickness (one nanometer is one-millionth of a millimeter).

### Conducting R&D on fuel cell systems

As one of its measures to develop and promote advanced technologies for the use of energy, Japan Energy has been taking part since fiscal 2005 in large-scale experiments with stationary fuel cells organized by the New Energy Foundation (NEF). Japan Energy installed 30 fuel cell power generation systems in homes in fiscal 2005. In fiscal 2006 the number of system installed was 40, with 34 in fiscal 2007 and 40 in fiscal 2008 for a total of 144 systems in ordinary homes all around Japan. Currently available results from operating data collected on these systems are as follows:



Residential fuel cell

- Savings in use of primary energy: 19.9%\*
- Reduction in CO<sub>2</sub> emissions: 32.5%\*

\* The above figures were announced by the NEF at a meeting in March 2008 in the form of a report on large-scale system performance verification projects.

In fiscal 2009 the government began a project to promote the use of fuel cells, and henceforth we intend to utilize our experience and know-how in this field to further promote the use of fuel cells and to underpin marketing activities.

Regarding the recovery of valuable metals (such as platinum, gold, silver, and copper) from fuel cells used in large-scale performance verification projects once the projects are completed, we are collaborating with the Nippon Mining & Metals Group to develop effective ways of using these limited resources. In addition, we are



SOFC system

# Creating a recycling-oriented society

## A technology to recover metals from low-grade copper concentrates

The Nikko Chloride Process (N-Chlo Process) was originally developed by Nippon Mining & Metals. About three years ago, joint project with other companies to develop a hydro-metallurgical process brought about the idea to create the N-Chlo process. Traditionally, Nippon Mining & Metals has considerable experience in recovering nickel and cobalt, by the solvent extraction method\*<sup>1</sup> as well as in leaching out and refining copper and precious metals using chloride media\*<sup>2</sup> at the Saganoseki Smelter & Refinery. In addition, I personally had technological knowledge and experience in extracting metals. At the time, one of the greatest challenges was how to efficiently recover metals from low-grade copper ores. In order to achieve a breakthrough, I tried to employ the solvent extraction method. My familiarity with the technological issues involved in the use of chloride media enabled me to envisage the entire development process, and to leverage the Company's proprietary technologies to overcome each technical difficulty.

The N-Chlo Process allows us to develop new mines and extend the lives of existing mines, which produce low-grade copper concentrates. This would be quite difficult to do using conventional technologies. We are currently conducting a pilot plant test on a commercial scale in Australia. Together with younger technical staff members, I will continue to work on the development of this technology with the aim of commercializing it before long. I believe this initiative will enable the efficient recovery of limited natural resources, thereby contributing to the creation of a sustainable society.

\*1 "Solvent extraction" is a technology for isolating and recovering specific target metals from others that dissolve in water, using the reactions of organic reagents produced from petroleum or plants which possess metal ion binding properties.

\*2 "Chloride media" refers to a chloride solution containing sodium chloride or other chlorides.

## Developing new refining technologies that enable effective use of limited resources

The Nippon Mining & Metals Group is developing new hydro-metallurgical processes that utilize the reactions of micro-organisms\* or that employ our proprietary technologies. Commercialization of these technologies could significantly reduce energy consumption and CO<sub>2</sub> emissions, as compared with the performance of conventional pyro-metallurgical processes. In addition, these processes would allow us to recover copper from low-grade ores, which we have previously not been able to use. Our initiatives to develop these processes would make a significant contribution to the more effective utilization of resources.

\* The Nippon Mining & Metals Group is working with Codelco, the Chilean state-owned copper mining enterprise, and with the Institute for Advanced Biosciences of Keio University, on research aimed at the practical application of bio-leaching technology. This technology employs naturally occurring microorganisms to efficiently leach out copper from primary sulfide ores, from which existing methods cannot currently extract copper. The practical application of this technology enables the direct recovery of copper from low-grade sulfide copper ore, which is currently discarded as waste, in a manner similar to that of oxide copper ores.

The key is to harness our experience and always keep trying without giving up

Yoshifumi Abe  
Deputy General Manager  
Technology Development Center  
Nippon Mining & Metals Co., Ltd.



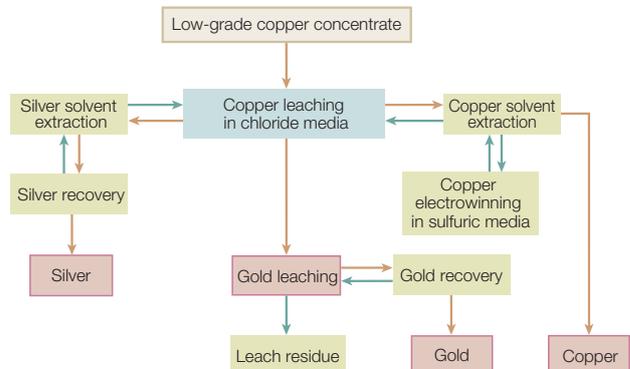
## A pilot plant test of a new hydro-metallurgical refining technology in Australia

A pilot plant test of the Group's new N-Chlo Process to efficiently recover copper, gold and other metals from low-grade concentrates is being conducted in Australia in collaboration with a major mining company, Newcrest Mining Ltd.



Pilot plant (Australia)

### N-Chlo Process



## Efficiently recovering precious/rare metals from “urban mines”



Working to further develop our accumulated technological expertise, and pass it on to the next generation

Yasukatsu Sasaki  
Manager  
HMC Works  
Nippon Mining & Metals  
Co., Ltd.

The HMC (Hitachi Metal Recycling Complex) project (to recover value-bearing metals from electronic devices, substrates, and household electronic appliances mainly discarded as waste in Tokyo and its surrounding areas as well as from intermediate materials produced during the refining processes of the Group) had been in the planning stage for four years. The recovered metals would be supplied to the Electronic Materials Group as their raw materials. The HMC Works employs a proprietary, complex process that the Group has developed by combining pyro- and hydro-metallurgical processes, cultivated in the smelting and refining processes of not only copper but also tin, nickel, zinc and other metals.

Once actual operations started, we faced various challenges, including trouble with new equipment and difficulties in dealing with the unexpected shapes and compositions of such raw materials. We have been overcoming these challenges in ingenious ways on pre-treatment lines and through other processes. I would like to further develop technologies to recover a greater variety of metals from a wider range of raw materials by leveraging the practical experience gained through operations at the HMC Works.

Currently, we recover 16 types of metals at the HMC Works. Recovering these metals requires processes leveraging a wide range of leading-edge technologies. At the same time, handling these processes offers ideal opportunities for younger engineers to accumulate considerable experience. I have personally learned many things in the laboratory and on the shop floor, where I have extensive experience. I would like younger engineers to experience a variety of things, develop their own areas of expertise and broaden their perspectives, as well as acquire greater technical expertise. I believe these endeavors will contribute significantly to the creation of a recycling-oriented society.

### Developing technologies to efficiently recover value-bearing metals

The Nippon Mining & Metals Group is involved in the development of metal resources, particularly copper, in overseas countries. At the same time, to more effectively utilize the Earth's limited resources, we are actively engaged in the recycling of resources from “urban mines.”\* We make full use of technological expertise the Group has built up through the course of its mining and smelting operations, as well as through the Group's business network.

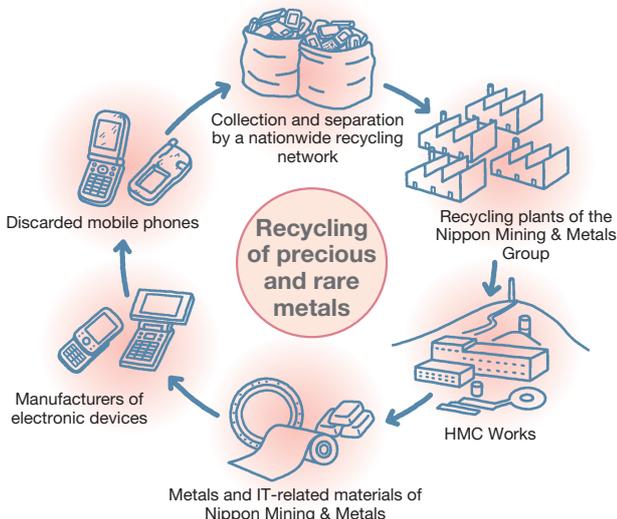
In May 2009, the HMC Works began operation. The Group has developed a proprietary, complex process which involves the combination of pyro-metallurgical and hydro-metallurgical processes, cultivated in the Group's smelting and refining operations, and recycling and environmental services. This unique process enables the Group to recover various value-bearing metals from recycled raw materials mainly generated in Tokyo and its surrounding areas.

Meanwhile, Nippon Metals Taiwan Co., Ltd., a Group company, is scheduled to start operation of its Chiongpin Recycling Center in September 2009 to conduct pre-treatment activities, including crushing and sampling of recycled materials with subsequent shipment to Japan.

\* “Urban mines” collectively denotes all the metals that are able to be recycled and classified from among the non-ferrous metals that were originally extracted from natural ores, made into various forms after going through smelting and refining processes, and that were once used in human economic activities.

### Recycling used lithium-ion batteries

The Technology Development Center is promoting technology development for the deposition of recycled raw materials, through the combination of hydro-metallurgical and pyro-metallurgical processes, as well as a physical separation process, that employs a mineral dressing technique practiced at the mines. In addition, the Center is engaged in technology development to isolate and recover nickel, cobalt, manganese, and lithium from used lithium-ion batteries, by applying a cutting-edge technology to isolate and recover nickel and cobalt through the use of a sulfuric acid bath, which Nippon Mining & Metals successfully developed for the first time in the world in 1978.



Chiongpin Recycling Center, operated by Nippon Mining Taiwan Co., Ltd.



HMC Works in Hitachi, Ibaraki Prefecture

## Recycling of waste plastic

### Aiming to expand the applications of waste plastic recycling



Takanori Kawanishi  
Researcher  
Petroleum Refining Research & Technology Center  
Japan Energy Corporation

There are many difficulties in the method of the application of cracked oil from waste plastics. If you try to feed such plastic-derived oil into a refining facility in the same way as materials refined from naphtha, which is the raw material of plastics, this is certain to cause problems, or at least result in low production efficiency. Moreover, mixing various different types of plastic together to produce raw materials results in a high incidence of impurities, with a low quality of finished product. At Japan Energy, through collaboration with petrochemical plant operators, we have overcome one difficulty after another and have succeeded in developing a technology that allows us to economically turn waste plastic oil into high-quality naphtha. In April 2004 we commenced verification trials of this technology at our Mizushima Oil Refinery. In 2008 ordinary operations at the plant were stopped for once-every-four-years regular maintenance work. During the four-year period of the trials, we were able to confirm the results of continuous processing without interference, and then commenced operations on a commercial basis.

Currently, we are processing only “light” waste plastic oil, but we plan soon to move on to the development of “heavy” waste plastic oil, which will enable us to expand the processing volume. We also aim to expand the scope of application of our processing to waste plastic oil produced by petrochemical plant operators, which will lead to a growth in the volume processed.

If we can decompose and liquefy only 10% of the roughly 10 million tons of waste plastics generated each year in Japan, this would produce about 700,000 kl (around 4.4 million barrels) of waste-plastic-derived petroleum, corresponding to roughly the volume of crude oil refined in one day by Japanese companies. If we could develop the technology that would enable the use of waste plastic oil to the same extent as crude oil, this would represent a major step forward in achieving efficient usage of the world’s limited oil reserves. It would also contribute greatly to strengthening the energy security of Japan, which lacks any significant oil reserves of its own.

The total product/resources cycle involved in Japan Energy’s waste plastic oil recycling business is still small-scale, but I am approaching my work with a very positive attitude. Whatever it takes, I aim to expand the application of recycled waste plastics.

### Japan’s first oil refiner to develop a practical technology for recycling waste plastic oil into petroleum

Approximately 9.9 million tons of waste plastic was generated in Japan in fiscal 2007. Currently, although approximately 70% of the total volume of waste plastic is recycled, conventional methods of recycling only allow the recycler to recoup the cost of the thermal energy required for the recycling process. Due to the low quality of waste plastic oil, the range of applications for recycled plastics is very limited in most cases. On top of that, about 30% of plastic waste is incinerated or buried in landfill sites.



A chemical recycling process jointly developed by Japan Energy and the Packaging Plastic Oil Conversion Council uses thermal decomposition to convert household waste plastic into waste plastic oil. This is then recycled into petroleum distillates (principally naphtha) using oil refining equipment. The principal advantage of this method is that plastic products can be recycled any number of times, contributing to the realization of a sustainable society with a strong focus on resource conservation. This is the first practicable method for chemically recycling waste plastics to be developed by a Japanese oil company.

Japan Energy’s role in the whole recycling process is to receive waste plastic oil from cooperating petrochemical plants and make high-quality, stable naphtha. Japan Energy is working closely with petrochemical plant operators to establish quality standards for waste plastic oil and ensure that those standards are maintained.



Mizushima Oil Refinery

The Nippon Mining Holdings Group has laid down “enhancing innovative action” as one of its basic targets under its Long-Term Vision towards Fiscal 2015. To achieve this target, we are conducting a Groupwide human resources development program, including the creation of a staff training system that makes the most of the unique strengths of the Group’s two main operating companies—Japan Energy and Nippon Mining & Metals.

### Human Resources at the Nippon Mining Holdings Group

Since our predecessor, the Hitachi Mine, first commenced operations in 1905, the concept of “valuing people” has been at the core of the Nippon Mining Holdings Group’s management. People are the source of a company’s competitive strength, and we view human resource development as one of our most important management issues.

The Council of Human Resources Development was established in April 2005 as an advisory body to the president, creating a structure from which to study human resource development laterally across the entire Group. This council, which consists of the presidents and executives responsible for human resource development of Nippon Mining Holdings and the two core operating companies, in principle meets once a year to discuss issues and exchange opinions, focusing on the establishment of the basic policies for the operation of the Nippon Mining Management College, introduced below. The policy established for fiscal 2008 was “Developing professional managers by cultivating specialized knowledge and leadership abilities related to management.”

### Operation of the Nippon Mining Management College

The Nippon Mining Management College is a research system established in April 2005 with the president of Nippon Mining Holdings acting as the dean, and with the aim of developing managers who are able to swiftly and accurately address rapid changes in the operating environment.

The college provides customized group training for directors and key managers of Nippon Mining Holdings Group companies, and also sends them to outside research institutions and invites outside experts to give lectures. Since the Group was integrated under the holding company structure, the college has also held a group training program for new hires of the two core operating companies, recognizing that they are the candidates for future management.

#### Training programs at the Nippon Mining Management College (fiscal 2008)

<b>Executive program</b>	This program encompasses the 43 executives of Nippon Mining Holdings and its two core operating companies. The main purpose of the program is to build a common awareness and understanding, through intensive discussions, of actual or potential management issues for the Group.
<b>Managers program</b>	Four courses, targeting different levels and attended by a total of 106 newly appointed managers and general managers, dealt with themes to cultivate management skills and gain knowledge through practical training.
<b>Open college</b>	Five voluntary courses—presentation skills utilizing computers, project management, time management, basic finance, and negotiation skills—are offered for staff who wish to study these subjects, and these were attended by a total of 85 employees.
<b>Group training for new hires</b>	This program, held for 74 new hires at core operating company headquarters, aimed to (1) promote a general understanding of each core company and interactions between companies, (2) teach business etiquette and cultivate an understanding of one’s responsibilities as a member of society and (3) improve foreign language skills.
<b>Correspondence courses</b>	Voluntary correspondence courses are offered with common curricula for the entire Group. During fiscal 2008, 214 courses were offered and 148 staff participated.



Group training for new hires



Executive program



## Training for Refinery Operations Staff

Japan Energy has positioned the strengthening of competitiveness of its oil refineries as a high-priority management task. The first two or three years after new-hire employees enter the company is a crucial period, and the training they receive during that period will determine their subsequent development potential, workplace motivation, and ultimately their job performance. Japan Energy therefore conducts a unique training program that is principally aimed at enabling employees who have been newly hired to work in the company's engineering units to become full-fledged workers as soon as possible.

Broadly speaking, two courses are offered: one for those staff planning to work in production or research departments, and one for those planning to join the company's engineering departments. Competency models are employed, and the program comprises a unique training curriculum, including the training of groups of employees in conducting checks of equipment and remodeling, taking advantage of the periods set aside for regular refinery maintenance. The main features of the training program are described below.

1. Mandatory training is provided for engineering staff over the first 1-2 years after joining the Company, following which employees may apply for further training in accordance with their particular needs and objectives.
2. Training is conducted using a competency model developed specifically for the company's refinery operations which specifies minimum requirements for each entry year.
3. The basic training program consists of a course attended by all new hires (technical staff) for their first year in the company, followed by further short-term training programs using a common curriculum, which are conducted separately at each unit of the Company to which the new employees are assigned.
4. Study by new employees toward the acquisition of qualifications is divided into mandatory and optional subjects, and the required standard is set separately for each entry year.
5. Trainers are assigned to each employee for the first five years after joining the company. We make efforts to find trainers who can exercise continuous supervision, and further training of employees is carried out on the job and through problem-solving activities.
6. Job rotation is always made from the perspective of effective human resources development.
7. Continuous training is provided as appropriate through "follow-up meetings" held by trainers and other staff involved.

Makoto Kobayashi  
Engineer  
Mizushima Oil Refinery  
Japan Energy Corporation  
Joined the Company in 2001



Comments by  
former students

Shinya Endo  
Engineer  
Mizushima Oil Refinery  
Japan Energy Corporation  
Joined the Company in 2003



### Further perfecting our technology through innovations both major and minor

Regarding our refinery operations, we have been carefully planning and conducting training programs right from the beginning. One of my most enduring memories of the training I received was practical training in the operation of facilities carried out on-site. The work of staff in our section consists mostly of design, but practical training with the actual equipment allows one to appreciate design points that were not apparent when just examining the designs on paper or screen. In particular, when I realized that the equipment operator was accurately monitoring several hundred indicators almost simultaneously, I was extremely impressed with his high-level skills. When I work on the design of a piece of equipment myself, I remember this incident, and it helps renew my determination always to try to understand the needs of the operator. I always keep in mind the importance of ensuring ease of operation.

From my second year in the Company I was involved in practical training using a process simulator. Through my experience in constructing a model piece of equipment, in which I was responsible for the design, the lesson was impressed on me that you cannot fully understand operating conditions by working in front of a drawing board alone. I realized that the use of simulations in this manner was a powerful tool in helping to speedily implement ideas for improved profitability.

At the moment, I am working on the construction of facilities for the separation and refinement of LPG, naphtha, kerosene, and gas oil from the condensate produced during the processing of petroleum gas. The entire project encompasses everything from basic design of the plant through detailed design and construction, trial operation, and performance analysis. The success of this project is really important to me, and I am throwing myself into this work with tremendous enthusiasm under the slogan: "Nothing is impossible."

### With uncompromising dedication, we are working to further improve our technology and realize higher safety levels

In my job, I am responsible for the maintenance of the plant's facilities. Specifically, I have to plan and implement inspections of the facilities to monitor corrosion and other symptoms of superannuation, and then evaluate the results of the inspection. To pinpoint the causes of operational trouble at the plant, it is essential to be able to understand the corrosive processes at work from the chemical engineering viewpoint, and to do that, one must have solid theoretical knowledge.

As I have accumulated some experience working in this field, I can easily comprehend the necessity for theoretical knowledge, but when things go wrong with the facilities I am so busy that I often do not have the time for study.

During my first year in the company, I attended classes and training sessions together with the other new hires, and the number of subjects in the chemical engineering curriculum was so large that I was unsure whether or not knowledge in the field of chemical engineering would be useful to me as a specialist in mechanical engineering. Now that I have been assigned to inspection work, the knowledge that I acquired during training is proving invaluable.

Currently, the inspections and evaluation for which I am responsible directly involve safety and environmental considerations, and the results will be important for operations at the plant in the future. Through the exchange of information with my counterparts at other companies in the oil industry, I have realized that Japan Energy possesses a technological lead in the field of refinery equipment maintenance. But that does not mean I will be satisfied with our present achievements. I hope to acquire more theoretical knowledge and practical technical experience so as to achieve still higher levels of safety. I plan to network proactively with people from all the various related technical fields, so as to acquire the hints and new perspectives that will enable me to improve our processes and facilities even further.

# Management of the Nippon Mining Holdings Group

## Corporate Governance

### Basic approach

In order to enhance enterprise value based on efficient management throughout the Nippon Mining Holdings (NMH) Group and ensure the optimal allocation of management resources, the NMH Group management is structured around basic management agreements between Nippon Mining Holdings (the Company) as a pure holding company and its core operating companies, while the NMH Group respects the operating autonomy of each Group company. The Company's basic policy with regard to corporate governance is to maintain effective control over the NMH Group operations and ensure management transparency by keeping business execution separate from the Group management by the Company under the holding company system.

### Method of implementing operations

Within the Nippon Mining Holdings Group, the Board of Directors, the Executive Committee and other bodies make important management decisions on behalf of Group companies to maximize the profit of the NMH Group as a whole. In the fiscal year ended March 31, 2009, the Board of Directors met 14 times, and the Executive Committee met 27 times.

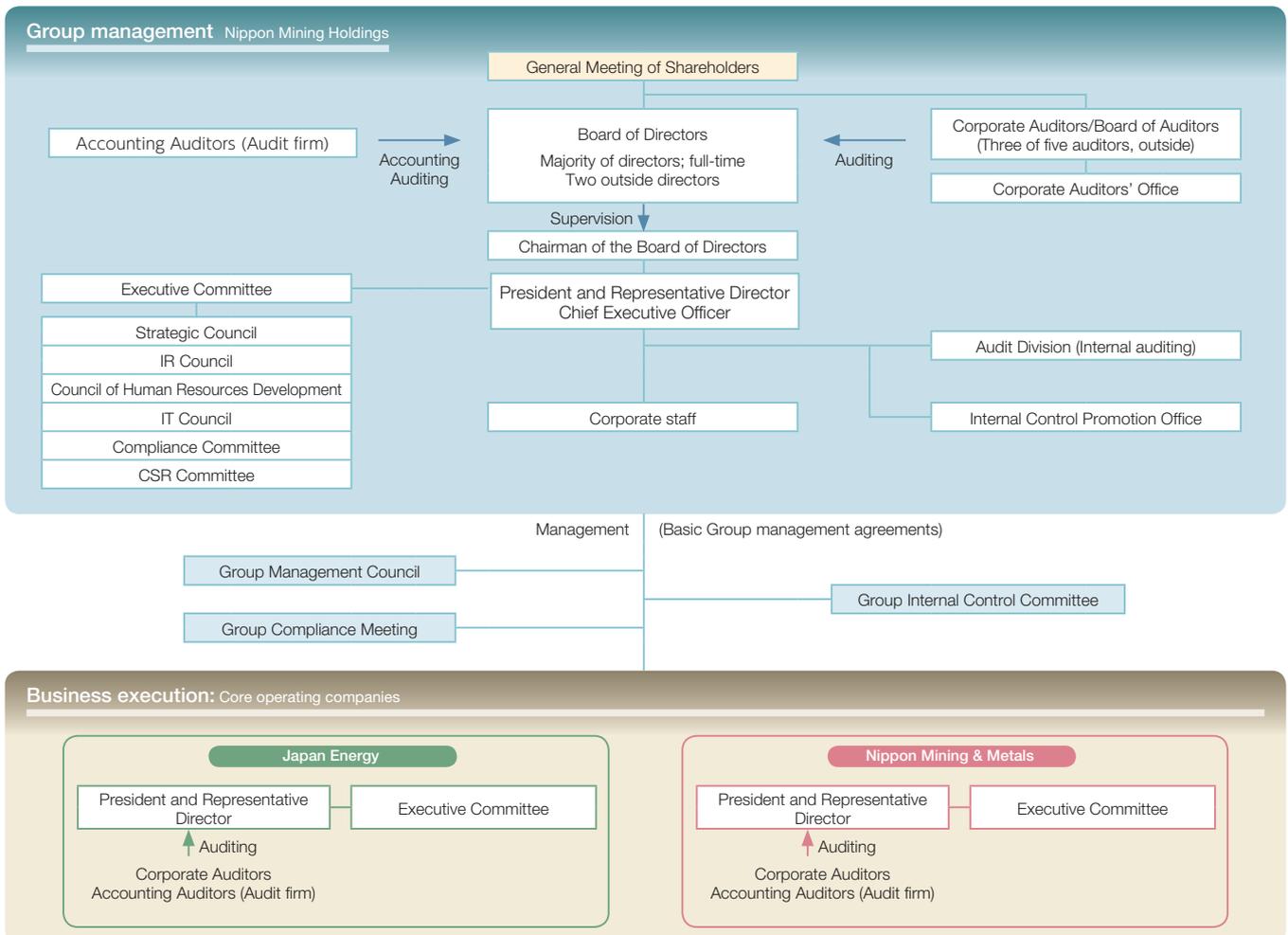
### Method of auditing and oversight

As a rule, the majority of the Company's directors are serving on a full-time basis, and together with other directors they manage and supervise operations of the Group's operating companies. They fulfill an oversight function that is independent from the ordinary execution of business operations conducted by each operating company.

Responsible for operational implementation, the presidents of the core operating companies report to the Company's Directors and the Executive Committee on the corporate governance performance of their own operating companies.

Two outside directors have been appointed to strengthen the supervision of the performance of duties by directors and encourage even greater transparency and objectivity in the decision making of the Company's Board of Directors. Also, in order to further reinforce the audit system, the Company currently has five corporate auditors, including three outside auditors.

**Nippon Mining Holdings Group's corporate governance system** (as of July 1, 2009)



## Internal Control System

### Basic approach

Using the Internal Control Promotion Office as a secretariat, Nippon Mining Holdings makes a continuous effort to develop its internal control system. Based on the basic management agreements between the Company and its operating companies, the Group Internal Control Committee examines and discusses policies for internal control planning, document preparation and evaluation for the whole Nippon Mining Holdings Group.

A meeting of the Board of Directors on May 10, 2006 established an overall system to ensure that the Company's operations are implemented correctly in accordance with Article 362, Paragraph 4.6 of the Companies Act and Article 100 of the Companies Act Enforcement Regulations. This system is subject to ongoing review and any necessary amendments to ensure that the Company's operations remain in accordance with the enactment, revision or abolition of relevant laws and regulations, and that they reflect changes in social conditions.

### Compliance and Risk Management

Every year in October, the Group Compliance Council convenes to confirm a shared awareness regarding compliance issues. In addition, the Group Compliance Committee monitors operations in April and October to ensure that the Group's rules and regulations are being upheld. Nippon Mining Holdings and its two core operating companies also maintain their own whistleblower systems, and are further strengthening these compliance systems. With regard to risk management, each operating company, responding to the particular characteristics of its business operations, conducts adequate legal and other risk management. As a holding company, Nippon Mining Holdings operates a risk management system that covers the whole Group as part of Group management.

## CSR Management System

### Establishment of the Nippon Mining Holdings Group CSR Committee

In order to create a groupwide CSR management system, in April 2008 the Nippon Mining Holdings Group established the Nippon Mining Holdings Group CSR Committee as an advisory body that provides the Company's president with consultation and opinions on important CSR matters. The core operating companies Japan Energy and Nippon Mining & Metals have already established their own CSR management systems headed by their respective presidents. The establishment of the Nippon Mining Holdings Group CSR Committee realizes a groupwide management system.

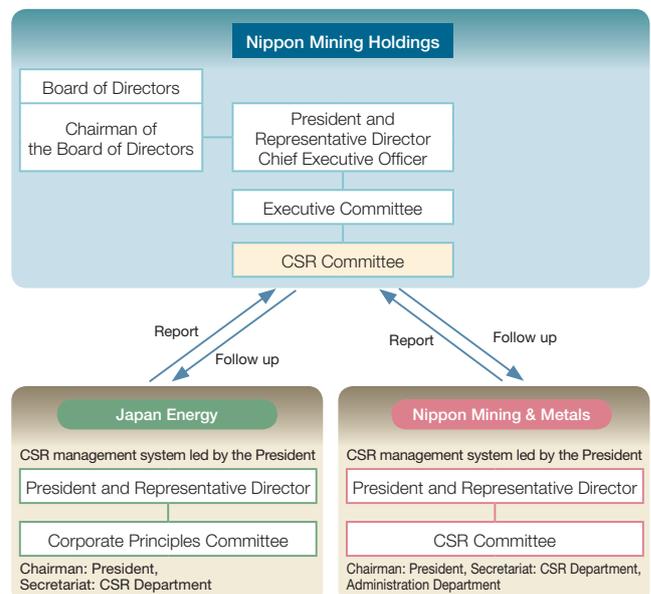
Comprising directors of Nippon Mining Holdings and executive officers of the two core operating companies, the committee convenes twice yearly to discuss overall issues and activities of the Group. The committee will fulfill the role of establishing the Group's overall CSR policy, monitoring and reviewing Group companies' progress in CSR initiatives and discussing important CSR matters relating to the Group.

Convened in May 2008, the first meeting of the Nippon Mining Holdings Group CSR Committee confirmed the scheme of the Nippon Mining Holdings Group's Mission and discussed plans for CSR activities.

In October of that year, the Group CSR Committee met for the second time. The two core operating companies discussed their priority targets and gave progress reports, providing updates on the medium-term environmental plan shared by the two companies. Committee members also exchanged views on forest preservation activities and means for raising employee awareness regarding CSR issues.

In April 2009, the Group CSR Committee met for the third time. With regard to the Group's CSR activities, a review of the fiscal 2008 activities was undertaken, and the priority issues for fiscal 2009 were discussed.

### Nippon Mining Holdings Group's CSR management system (as of July 1, 2009)



# Compliance and Risk Management

## Basic compliance policy

In May 2006, Nippon Mining Holdings established its Group Compliance Basic Regulations, which stipulate basic compliance policy and specific standards to which the directors and employees of the NMH Group companies must adhere, and created a system for compliance implementation.

### Group compliance basic regulations (excerpt)

#### Basic policy

At the member companies of the Nippon Mining Holdings Group, senior management take the lead in ensuring that each executive and employee, as an individual who is subject to public scrutiny, behaves sincerely and in compliance with laws, statutory regulations, social norms and corporate ethics. To that end, Group companies continuously reform their organizational cultures and establish systems to prevent misconduct and clarify responsibilities.

#### Specific compliance standards

- Conformity with the Antimonopoly Act
- Prohibition of insider trading
- Environmental protection
- Safety management
- Conformity with the Unfair Competition Prevention Law
- Fair relations with politicians, public agencies and public officials
- Consumer protection
- Disclosure of information and accountability
- No interaction with criminal groups
- Appropriate accounting
- Fair reporting of working hours
- Prohibition of receipt of gifts
- Prohibition of unfair discrimination
- Prohibition of sexual harassment
- Protection of personal information
- Prohibition of child labor and forced labor
- Prohibition of conflicts of interest
- Prohibition of private usage of company property
- Assurance of security of company information
- Appropriate management of exports
- Prohibition of trading for speculative purposes
- Rigorous crisis management

Further, executives and employees must comply with all related laws and statutory regulations and perform their duties in accordance with social norms and corporate ethics.

Normally convened twice yearly, the committee considers and approves priority targets for each fiscal year and reports on progress. With the aim of informing employees about these measures and encouraging their implementation, we post committee minutes on the intranet so that all employees of the member companies of the Group can view them.

Further, the committee manages the whistleblower systems of Nippon Mining Holdings and the Group companies that report directly to it.

In addition, the Company extends and strengthens compliance initiatives by convening the Nippon Mining Holdings Group Compliance Committee, which comprises the members of the Nippon Mining Holdings Compliance Committee and the presidents of Group companies.

## Compliance and risk management

The Nippon Mining Holdings Group conducts risk management, which includes the management of legal risk by each Group company in accordance with the characteristics of its business. As the Group's holding company, Nippon Mining Holdings monitors the progress of compliance committees and, as part of Group management, operates a risk management system covering the whole Group.

## Establishment of a business continuity plan in preparation for a large-scale earthquake

In the summer of 2007, Nippon Mining Holdings and Group companies operating in the Shinnikko Building distributed emergency-use items to assist their employees returning home in the event of a large-scale earthquake with an epicenter in Tokyo. At the same time, the companies introduced a system for confirming the safety of employees based on mobile phones. In addition, in fiscal 2008, each Group company prepared a business continuity plan in preparation for a large-scale earthquake in order to create a system that will allow Group companies to make a unified initial response in the event of such an earthquake.



Handbook to deal with a large-scale earthquake

## The compliance advancement system of the Group

After establishing the Group Compliance Basic Regulations, the Company created the Nippon Mining Holdings Compliance Committee in October 2006. Chaired by the president of Nippon Mining Holdings, the committee comprises members appointed by the president from among the directors and senior officers of Nippon Mining Holdings and directors and executive officers of the core operating companies.

## Countermeasures for super flu

Concerned about the possibility of a widespread outbreak of H1N1 influenza, the Nippon Mining Holdings Group is taking various precautions.

The first outbreak of H1N1 influenza was reported in April 2009. With its eventual spread around the world, we have immediately introduced thorough countermeasures to prevent contamination. We have established guidelines for executives and employees traveling overseas regarding steps to be taken to minimize the risk of infection. We have also distributed face masks made of a non-woven fabric.

## Progress in implementation within the Group

### Japan Energy Group

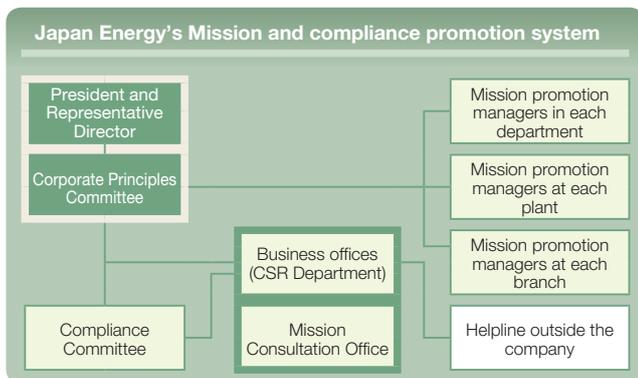
Japan Energy established its Basic Compliance Rules in May 2004. "In accordance with our corporate principles, top management is taking the initiative, with executives and employees making their own efforts individually, to observe all laws and regulations, social norms and corporate ethics, and act in an upright manner." With this aim in mind, "we are continually reforming our organization and corporate culture. Our basic policy is the drafting of measures to delineate responsibilities and prevent misconduct."

Specifically, the Compliance Committee has been set up subordinate to the Corporate Principles Committee, and is responsible for drafting the policies governing company-wide training programs and educational activities. Under this system, the head office departments, branches, and plants specify those priority issues that are to be made the focus of compliance measures. Results with regard to the implementation of these measures are reported once every six months. The Compliance Committee conducts an investigation of every office and operational base and states the steps that must be taken. (Subsidiaries of Japan Energy also participate in the specification of target issues.) In June 2001, the Mission Consultation Office was established to answer questions from employees with regard to our Corporate Principles, accept feedback and listen to employees' problems and concerns. In line with Basic Compliance Rules, it functions as the whistleblower office for acts of misconduct. In fiscal 2008, this office provided an appropriate response for two cases that had been reported.

Risk management can be divided into risk assessment (preventative), risk control (dealing with problems), and risk communication (public relations). Japan Energy places particular emphasis on preventative risk assessment. The company evaluates the highest-risk aspects of its business activities—the production equipment of its oil refineries—using the HAZOP\* method.

On April 20, 2008, a fire occurred in the vicinity of a pump within the No. 2 paraxylene unit of the Kashima Oil Refinery. Warping of the pump due to a rapid change in temperature caused the accident. We improved equipment and operational control methods in order to prevent a recurrence.

\* HAZOP (Hazard and Operability Study): a method for evaluating the safety of processes.



### Nippon Mining & Metals Group

At the Nippon Mining & Metals Group, the Compliance Subcommittee meets regularly (twice a year) and as needed to discuss and decide on basic policies regarding compliance, priority issues for each fiscal year, and action plans for compliance programs. In April, the subcommittee is convened to receive progress reports with regard to compliance-related matters from all operating sites, and subsequently summarizes the results. At these meetings, the subcommittee also considers the effectiveness of remedial actions for each issue and establishes additional measures as necessary. In addition, the subcommittee assesses the risks of events that may constitute fraud and law violations in order to factor in this information in identifying priority issues and formulating compliance programs.

Risk management issues are handled primarily by the Risk Management Subcommittee. In line with a basic policy and an action plan decided by the subcommittee, risks are identified and evaluated at major operating sites, and appropriate countermeasures are subsequently developed and implemented. In fiscal 2008, the subcommittee reviewed planning and performance measures in relation to 15 substantial risks identified from almost 500 issues recognized across the Group. Also, each operating site undertakes self-assessments of its own progress with regard to risk management, and identifies relevant risks once a year. The Group intends to continuously improve its risk management system by effectively implementing the PDCA cycle.

In November 2007, on-site inspections were conducted by the Japan Fair Trade Commission, on suspicion of the violation of antitrust laws through bid-rigging in the purchase of molten metals (metals generated through the incineration of garbage) sold by local public entities and other bodies. In October 2008, as a result of the subsequent investigation, a Cease and Desist Order was issued to Nikko Environmental Services Co., Ltd., a subsidiary of Nippon Mining & Metals. The Group views this incident as an opportunity to conduct a thorough review of the operation of its risk management systems, and is improving and strengthening its compliance programs for employees to prevent a recurrence of such acts and establish a corporate culture where compliance is considered to be the top priority.



# Implementation of Environmental Management

The Nippon Mining Holdings Group regards the provision of stable supplies of resources, materials and energy as a significant social mission. Also, the Group is taking steps to create a better global environment based on its Five Promises to the Earth.

## Environmental Management

3Is & 2Cs	<b>Identity</b>	We will use the Earth's precious resources effectively as part of our responsibilities to global society.	<b>Collaboration</b>	We will proactively carry out global environmental initiatives and realize harmony with nature.
	<b>Innovation</b>	We will promote the development of low-impact technologies and contribute to the achievement of an environmentally sustainable society.	<b>Contribution</b>	We will work in harmony with local communities as a responsible global citizen to contribute to social and economic development and help create a better future.
	<b>Integrity</b>	We will function as a member of international society and continue to act in the spirit of global environmental protection.		

### Five Promises to the Earth

In the process of providing society with indispensable resources, materials and energy, the business activities of the Nippon Mining Holdings Group place a certain burden upon the global environment. In light of that fact, the Nippon Mining Holdings Group sought to mitigate that burden on the global environment as much as possible and contribute to the achievement of a better global environment by establishing Five Promises to the Earth to guide the development of its business activities.

### Environmental management system

Nippon Mining Holdings Group's environmental activities centered on the two core operating companies of Japan Energy and Nippon Mining & Metals, and from fiscal 2008, Toho Titanium as well. The Group's activities reflect the characteristics of these three companies' operations. An environmental management system is being built for these three operating companies, and each of these three companies has prepared basic environmental policies and autonomous action plans for environmental protection, and has acquired ISO 14001 certification.

In April 2008, Japan Energy began a new medium-term environmental plan and in May 2008 Nippon Mining & Metals revised its autonomous action plan on environmental protection, including major overseas operating bases.

### Environmental accounting

The environmental expenses and capital investment for environmental improvement of the Nippon Mining Holdings Group in the fiscal year ended March 31, 2009, are as shown in the following table. In the fiscal year under review, we mainly checked the

costs incurred through the operation of devices to reduce sulfur in gas oil and enhance the quality of gasoline. We also verified the effectiveness of measures for pollution prevention and resource recycling.

### Environmental expenses and investment

(Billions of yen)

	Environmental expenses	Capital investment
Japan Energy Group	61.34	17.88
Nippon Mining & Metals Group	22.03	11.51
Toho Titanium Co., Ltd.	0.96	0.49
Other	5.10	0.06
<b>Total</b>	<b>89.43</b>	<b>29.94</b>

The figures provided for the Japan Energy Group do not include Japan Energy Development's activities.

### Environmental risk management

Based on the Soil Contamination Measures Law, the Nippon Mining Holdings Group conducts ongoing surveys to check for the presence of soil contamination at plants, delivery terminals, former sites of JOMO service stations and other land owned by the Group. If contamination is discovered, the Group deals with it appropriately.

Regarding the Funakawa Works soil remediation project for areas within the operating base and on land owned by the Group outside the operating base, which began in the fiscal year ended March 31, 2002, work on land owned by the Group outside the operating base has been completed. At present, we are proceeding with measures inside the operating base, which we plan to complete by the fiscal year ending March 31, 2011.

### ISO 14001-Certified Group Companies and Plants

#### Japan Energy Group

Mizushima Oil Refinery, Chita Oil Refinery, Funakawa Works, Sodegaura Lubricants Plant, and Kawasaki LP-Gas Terminal of Japan Energy; Kashima Oil Refinery of Kashima Oil Co., Ltd.

#### Nippon Mining & Metals Group

<b>(In Japan)</b>	Hitachi Works, Shirogane Works, Isohara Works, Toda Works, Kurami Works of Nippon Mining & Metals, Pan Pacific Copper Co., Ltd., Nikko Smelting & Refining Co., Ltd., Hibi Kyodo Smelting Co., Ltd., Nissho Kou-un Co., Ltd., Japan Copper Casting Co., Ltd., Kurobe Nikko Galva Co., Ltd., Nikko Environmental Services Co., Ltd., Tomakomai Chemical Co., Ltd., Nikko Tsuruga Recycle Co., Ltd., Nikko Mikkaichi Recycle Co., Ltd., Nikko Fuji Electronics Co., Ltd., Nikko Coil Center Co., Ltd., Nikko Shoji Co., Ltd., and Nikko Logistics Partners Co., Ltd.	<b>(Overseas)</b>	Nikko Metals Korea Co., Ltd., Nikko Fuji Electronics Dongguan Co., Ltd., Nikko Fuji Precision (Wuxi) Co., Ltd., Nikko Metals Shanghai Co., Ltd., Nikko Metals Taiwan Co., Ltd. (Bade Works), Nikko Metals Philippines, Inc., Nippon Precision Technology (Malaysia) Sdn. Bhd., and Gould Electronics GmbH
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This report contains a general overview of the environmental performance of the Japan Energy Group and the Nippon Mining & Metals Group. Some details are presented below. For more information, please see the CSR report posted on each company's website.

## Medium-Term Environmental Plan

Japan Energy and Nippon Mining & Metals, the core business operators of the Nippon Mining Holdings Group, have devised environmental action plans which reflect the characteristics of their operations, setting targets and formulating measures for global warming prevention and environmental load reduction.

### Japan Energy Group

#### Progress report on our medium-term environmental plan (FY2008–2010)

Initiatives	Energy consumption intensity at refineries <sup>1</sup>	VOC emissions at refineries, works & oil tank facilities	Waste reduction at refineries & works
<b>Targets</b>	(FY2008-2012 avg.) <b>8.59 or lower</b>	<b>Reduce by 30%</b> (Base year=FY2000 <sup>2</sup> ) or more by FY2010	Waste-landfill-ratio <b>1% or less</b> by FY2010
<b>FY2008 Results/Assessment</b>	<b>9.07</b> Considering countermeasures	<b>Reduced by 22.0%</b> Steady progress	<b>2.86%</b> Considering countermeasures
<b>FY2009 Initiatives (Tentative)</b>	<ul style="list-style-type: none"> <li>Continue making adjustments to operations</li> <li>Devise measures for further improvements to achieve targets</li> </ul>	<ul style="list-style-type: none"> <li>Complete emission reduction measures for the five main tanks affixed to the roof in FY2009</li> </ul>	<ul style="list-style-type: none"> <li>Increase the rate of recycling of reusable materials</li> </ul>

<sup>1</sup> Energy consumption (kl Crude oil equivalent) / Production volume (1,000 kl)

<sup>2</sup> In FY2000, VOC emissions totaled 5,525 tons.

### Nippon Mining & Metals Group

#### Progress report on our autonomous action plan on environmental protection (fiscal 2006–2010)

Initiatives	Energy consumption intensity* (Fiscal 2008)	CO <sub>2</sub> emission intensity* (Fiscal 2008)	Final waste disposal intensity* (Fiscal 2008)
<b>Targets</b>	<b>Reduce by 3%</b> from the average of the period between fiscal 2003 and 2005* Reduce by 5% by fiscal 2010	<b>Reduce by 4.5%</b> from the average of the period between fiscal 2003 and 2005* Reduce by 7.5% by fiscal 2010	<b>Reduce by 18%</b> from the average of the period between fiscal 2003 and 2005* Reduce by 30% by fiscal 2010
<b>Performance and assessment in fiscal 2008</b>	<b>Reduced by 2.7%</b> Partially achieved the target	<b>Reduced by 5.4%</b> Achieved the target	<b>Reduced by 60%</b> Achieved the target
<b>Goals and initiatives in fiscal 2009</b>	<ul style="list-style-type: none"> <li>Encourage energy savings</li> <li>Improving waste heat recovery</li> </ul>	<ul style="list-style-type: none"> <li>Promote the shift to purchasing electric power from in-house power generation at some overseas operating sites</li> </ul>	<ul style="list-style-type: none"> <li>Revise goals to reduce; from 24% to 60% in fiscal 2009, and from 30% to 70% in fiscal 2010</li> </ul>

\* Since business lines of each operating base are different, the targets for the entire Group have been determined by figuring out the weighted average of intensity figures set for each operating facility of the Group.

The primary targets of Toho Titanium's Medium-Term Environmental Action Plan, which have been included within the scope of disclosure for the first time, are as follows.

- Reduce CO<sub>2</sub> emission intensity 5% by FY2012 compared with the average CO<sub>2</sub> emission intensity (CO<sub>2</sub> emissions volume/sales volume) for the FY2005-2007 period.
- Reduce waste-to-landfill intensity 50% by fiscal 2012 compared with the average waste-to-landfill intensity (the amount of industrial waste disposed of on land/total sales volume) for the FY2005-2007 period.

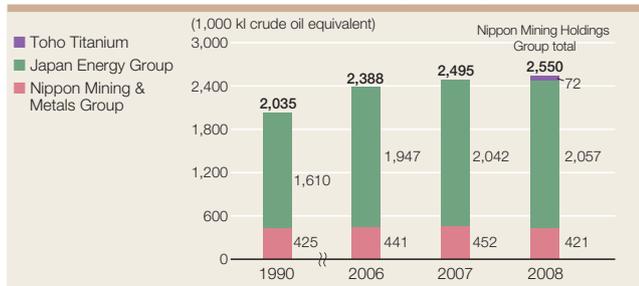
# Energy Saving

## Initiatives of the Nippon Mining Holdings Group to reduce energy consumption

In the fiscal year ended March 31, 2009 the energy consumption of the Nippon Mining Holdings Group (crude oil equivalent basis) increased over the previous year to 2,550,000 kl. This is principally due to the inclusion of Toho Titanium within the scope of calculation. Without this factor, energy consumption would have posted a year-on-year decrease of 20,000 kl.

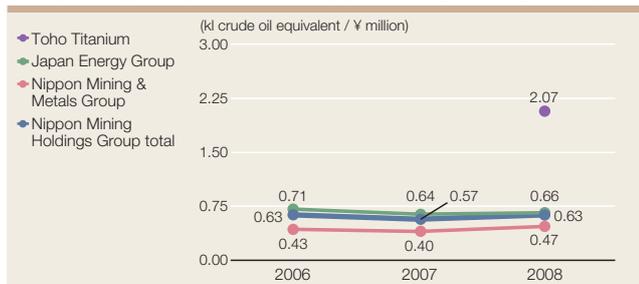
The energy consumption intensity of the Group (energy consumption to sales revenues, which are the principal indicator of total business scale), rose to 0.63 kl per million yen, as a result of a deterioration in the capacity utilization rates at the Group's three refineries—Mizushima, Chita, and Kashima—which account for approximately 80% of the Group's total energy consumption.

### Energy consumption of the Nippon Mining Holdings Group



The figures for the Japan Energy Group in fiscal 1990 are for the three refineries only. Figures for fiscal 2008 include 3,000 kl recorded by Japan Energy Development.

### Energy consumption intensity relative to revenue of the operating companies of the Nippon Mining Holdings Group



Figures for fiscal 2008 include energy consumption recorded by Japan Energy Development.

## Japan Energy Group

The basic approach of the Japan Energy Group is to help prevent global warming through countermeasures focused on energy saving. Accordingly, Japan Energy is implementing energy-saving measures in relation principally to its refineries, but also to its other business facilities.

In the fiscal year ended March 31, 2009 the Japan Energy Group worked to reduce energy consumption by redesigning processes at the Chita Oil Refinery so as to reduce thermal energy loss, as well as taking steps at all the refineries to achieve a higher level of waste heat recovery. As a result of an increase in the number of days in operation of the petrochemical product manufacturing facilities at the Kashima Oil Refinery, which commenced commercial production in January 2008, the energy consumption amount was roughly the same as in the previous year.

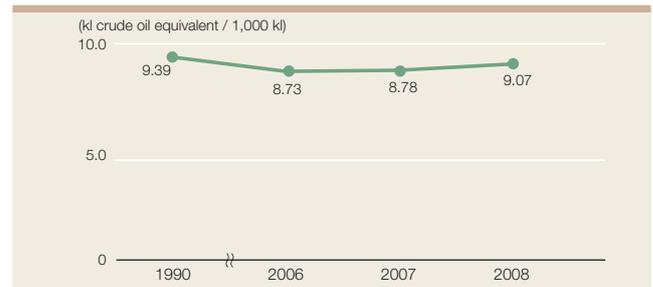
Energy consumption intensity\* at our oil refineries came to 9.07, down 3.3% from the previous year due to lower capacity utilization rates amid worsening market conditions. However, this represents an improvement of 3.4% over the 9.39 figure for fiscal 1990.

We will continue our efforts to improve operational processes with the aim of reaching the targets that have been set.

\* Energy consumption intensity: Because oil refining facilities comprise a variety of equipment and the configuration of equipment varies among oil refineries, comparisons have been made by calculating energy consumption intensity (energy consumption relative to production volume) of each refinery using adjustment coefficients that are commonly used throughout the oil refining industry, while also factoring in the unique characteristics of the facilities.

\* Energy consumption intensity = Amount of energy consumed (kl crude oil equivalent) / oil production volume (1,000 kl)

### Energy consumption intensity at oil refineries of the Japan Energy Group



Data is for the three oil refineries operated by the Japan Energy Group—Mizushima, Kashima, and Chita.

This report gives an overview of the environmental performances of the Japan Energy Group and the Nippon Mining & Metals Group, and includes some details of related activities. For further information, please see the reports included in the following company websites.

Japan Energy Corporation—CSR Report 2009

<http://www.j-energy.co.jp/english/csr/>

Nippon Mining & Metals Co., Ltd.—Sustainability Report 2009

<http://www.nikko-metal.co.jp/e/sustainability/index.html>

### Energy saving in logistics operations

The transportation of petroleum products can be broadly classified into land transportation and sea transportation. Land transportation is carried out by tank trucks and railway tanker cars, while sea transport is carried out by coastal tankers. For some time, the Japan Energy Group has been increasing the capacity of its coastal tankers and tanks at oil terminals and JOMO service stations in order to improve transportation efficiency and consume less fuel. In addition, Japan Energy is providing support to affiliated transportation companies to enable them to replace superannuated tank trucks with more fuel-efficient vehicles, as well as to obtain green management certification. We also frequently readjust transportation routes to optimize delivery conditions. We minimize energy losses on oil transportation by carrying out deliveries at night so as to avoid heavy daytime traffic.

\* Green Management Certificates = This is awarded to companies making a contribution to environmental preservation under the Green Management Certification System operated by the Foundation for Promoting Personal Mobility and Ecological Transportation, which promotes steps to reduce environmental burden by the transportation sector.

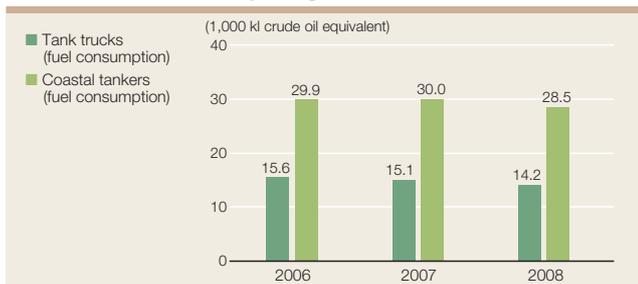


A large tank truck



A large coastal tanker

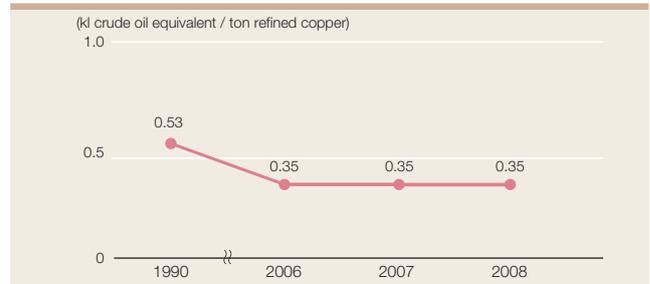
### Energy consumption of tank trucks and coastal tankers transporting fuel oil



With effect from this year's report, the units of energy consumption employed have been standardized to crude oil equivalents. As a result, disparities exist between data for previous years as shown in the report issued in fiscal 2008 and the present report. (The previous report calculated energy consumption for tank trucks in terms of gas oil equivalents and that for tankers in heavy oil equivalents.)

In fiscal 2008, the Group's energy consumption was 421,000 kl, a decrease from fiscal 2007. Meanwhile, operating bases in Japan alone accounted for 365,000 kl, down 14% from the 425,000 kl recorded in the base year of fiscal 1990 (the year ended March 31, 1991). Further, savings in energy consumption were achieved through a wide range of initiatives, mainly at operating bases involved in smelting and refining (single-furnace operations). Smelting and refining accounted for 56% of the Nippon Mining & Metals Group's energy consumption. As a result, energy consumption intensity for fiscal 2008 came to 0.35, roughly the same as in the previous year, but representing a decline of 34% from the 0.53 recorded in fiscal 1990.

### Energy consumption intensity of the Nippon Mining & Metals Group's operating bases involved in smelting and refining



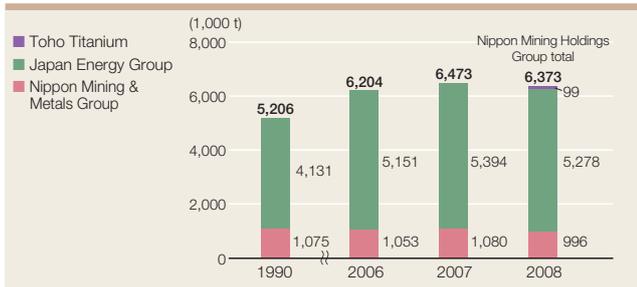
### Energy saving in logistics operations

The Nippon Mining & Metals Group is promoting increased transportation efficiency through a modal shift\*1 from land transportation to sea and rail transportation. In the fiscal year ended March 31, 2009, cargo transportation volume decreased, in addition to which the group achieved improvements by increasing the size of transportation equipment and enhancing loading ratios. Consequently, the Nippon Mining & Metals Group\*2 realized a decrease in energy consumption in crude oil equivalents of 7% from the fiscal 2007 level, at 15,800 kl. CO<sub>2</sub> emissions were also reduced by 7% from the previous year, to 42,700 tons of CO<sub>2</sub> equivalent.

\*1 Modal shift: Switching the main method of cargo transportation from trucks to rail or ships.  
 \*2 Figures obtained from the three operators subject to the Law relating to Rationalization of Use of Energy by Cargo Owners.

# Prevention of Global Warming

## CO2 emissions of the Nippon Mining & Metals Group



Fiscal 1990 data for the Japan Energy Group is for the three refineries only. Figures for fiscal 2008 include 5,000 tons recorded for Japan Energy Development. CO2 emissions figures for the Nippon Mining & Metals Group are calculated on the basis of CO2 emissions resulting from energy generation.

## Initiatives of the Nippon Mining Holdings Group to reduce CO2 emissions

In the fiscal year ended March 31, 2009, the CO2 emissions of the Nippon Mining Holdings Group's target operating bases in Japan and overseas combined (including an additional 99,000 tons for Toho Titanium, a newly consolidated subsidiary) came to 6,373,000 tons, while the figure for operating bases in Japan only was 6,236,000 tons. Both figures represented a decrease from the previous year.

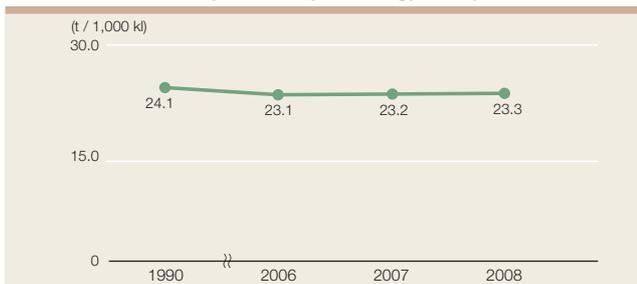
## Japan Energy Group

### Initiatives to reduce CO2 emissions

The CO2 emissions from oil refineries are generated by fuel combustion in furnaces during crude oil treatment and reforming reactions during hydrogen production. During fiscal 2008, lower capacity utilization rates caused by the deterioration in market conditions have worsened the efficiency of energy usage, but nonetheless CO2 emission intensity\* stayed roughly the same as in the previous year, at 23.3, representing a decline of 3.3% from 24.1 for the base year of fiscal 1990. This is attributable to a redesigning of processes at the Chita Oil Refinery as well as improvements made at all three refineries to raise the efficiency of furnaces and make wider use of heat exchangers for the recovery of waste heat.

\* CO2 emissions (tons) per 1,000 kl of production volume.

### CO2 emission intensity of the Japan Energy Group



Data is for the Japan Energy Group's three oil refineries (Mizushima, Kashima and Chita) only.

### Participation in Clean Development Mechanism

As part of efforts to combat global warming through the reduction of greenhouse gas (GHG) emissions, Japan Energy concluded a contract to purchase 1.5 million tons of CO2-equivalent emission credits from JMD GHG Reduction Co., Ltd. In the first commitment period of the Kyoto Protocol, from 2008 to 2012, Japan Energy will acquire emission credits equivalent to 300,000 t-CO2/year. JMD GHG Reduction's clean development mechanism (CDM) operations recover and break down CFC greenhouse gases emitted from a CFC-substitute production plant in Zhejiang, China.

### Investment in the Japan Greenhouse Gas Reduction Fund

Japan Energy invests in the Japan Greenhouse Gas Reduction Fund (JGRF), which was set up by the Bank for International Cooperation and the Development Bank of Japan together with a number of Japanese companies. JGRF purchases emission credits generated by greenhouse gas reduction projects in developing countries and Eastern Europe and distributes them among investors in the fund. Through its investments in JGRF, Japan Energy supports projects that reduce greenhouse gas emissions.

### Renewable energy—wind power generation

The Japan Energy Group generates electricity by using wind power as a clean energy. In March 2005, the group opened wind power generation facilities at the Kashima Oil Refinery. In the fiscal year ended March 31, 2009, those facilities generated 3,429,000 kWh of electricity, which corresponds to approximately 864 kl of crude oil equivalent.



Wind power generation facilities at the Kashima Oil Refinery

### Participation in trial operations of a unified market for emissions trading in Japan

Japan Energy participated in trial operations of a unified market for emissions trading, aiming to set targets for emissions trading in Japan. Invitation to participate in this program was issued in December 2008 by a government unit responsible for promoting measures against global warming.

\* In response to the second invitation, held in April-June 2009, the Saganoseki Smelter & Refinery of Nikko Smelting & Refining Co., Ltd. (Nippon Mining & Metals Group), announced its intention to participate in the trial operations.

### Initiatives to reduce CO<sub>2</sub> emissions

In the fiscal year ended March 31, 2009 CO<sub>2</sub> emissions resulting from energy generation from the combustion of fossil fuels at the Nippon Mining & Metals Group's target operating bases in Japan and overseas were down from the previous year, at 996,000 tons, while bases in Japan also saw a year-on-year decrease, to 859,000 tons. Emissions in Japan were 20% lower than those in the base year ended March 31, 1991.

Furthermore, operating bases related to smelting and refining, which account for 56% of the Nippon Mining Holdings Group's CO<sub>2</sub> emissions, reduced CO<sub>2</sub> emission through various energy conservation measures, including reorganizing smelting to operate with only one furnace. As a result, the emission intensity remained roughly flat, at 0.8, which represents a 40% decrease compared with the 1.4 recorded for the base year of fiscal 1990.

Some of the company's overseas business facilities have conventionally relied partially on power generated in-house by diesel-powered generators, owing to the unreliable nature of the local utility's power supply. Recently, however, the reliability of the local utilities has improved, while conversely, the economic efficiency of in-house power generation has declined owing to a reduction in the scale of operations at these facilities. We are therefore following a policy of increasing the purchase of power from utilities companies and reducing the scale of in-house generation.

\* CO<sub>2</sub> emissions per ton of refined copper produced.

### CO<sub>2</sub> from energy combustion at the Nippon Mining & Metals Group's operating bases related to smelting and refining



### Renewable energy—hydroelectric power

Soon after beginning operations, the Nippon Mining & Metals Group began generating electricity using water power. At present, the company generates electricity at the Kakinosawa Hydroelectric Power Plant in Iwaki City, Fukushima Prefecture. This power is sold to power producers and suppliers. In the fiscal year ended March 31 2009, the company's hydroelectric power generation operations produced electricity equivalent to 7,700 kl of crude oil, which represents 3% of the electrical energy consumption of the entire Group.



Kakinosawa Hydroelectric Power Plant

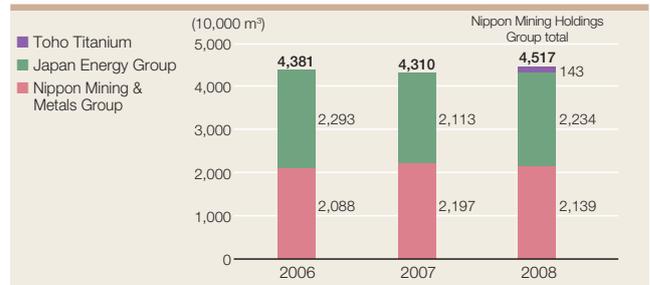
## Prevention of Water Pollution

The Nippon Mining Holdings Group monitors wastewater emissions from its facilities based on the Water Pollution Control Law, ordinances, agreements and voluntary standards.

Using such indicators as the presence or absence of oil or sludge in water and chemical oxygen demand, which shows water pollution levels, the Japan Energy Group manages wastewater appropriately utilizing water quality indicators. Although those indicators change according to wastewater volumes, the group is working to reduce pollution levels.

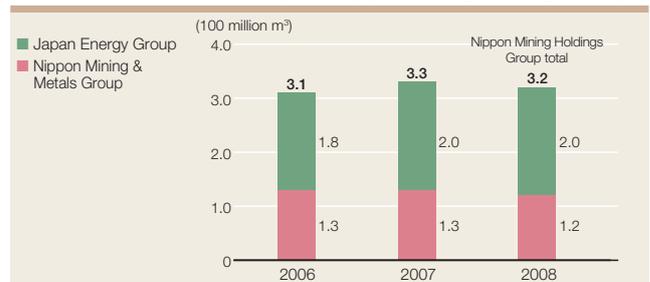
Seawater accounted for 85% of total water volume used by the Nippon Mining & Metals Group in fiscal 2008. Wastewater discharged directly into the sea accounted for 90% of total wastewater discharges. The refineries operated by the group account for 89% of water used, and both water usage intensity and wastewater intensity figures are following a trend of gradual decline. Waste liquid and wastewater produced by plants are processed at wastewater treatment facilities.

### Volumes of fresh water used by the Nippon Mining Holdings Group



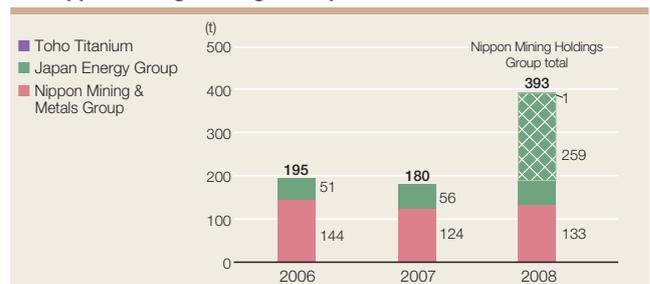
2008 figures for the Japan Energy Group include 520,000 cubic meters recorded for Japan Energy Development.

### Volumes of seawater used by the Nippon Mining Holdings Group



No figures for seawater use were made available in fiscal 2008 by Japan Energy Development. Toho Titanium uses no seawater.

### Chemical oxygen demand load volumes of the Nippon Mining Holdings Group



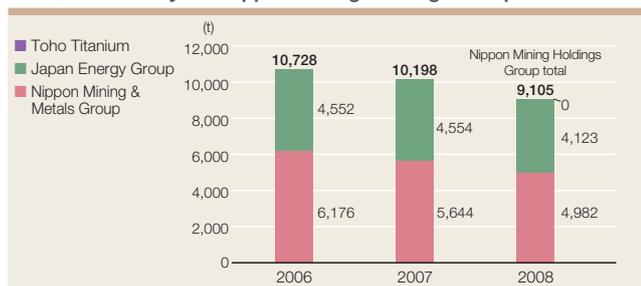
The Kashima Oil Refinery (Kashima Oil Co., Ltd.) is not included here because its waste is treated at the Ibaraki Prefecture Kashima Sewerage Office's Fukushima Treatment Plant. 2008 figures for the Japan Energy Group include 204 tons recorded for Japan Energy Development (portion shaded in green).

## Prevention of Air Pollution

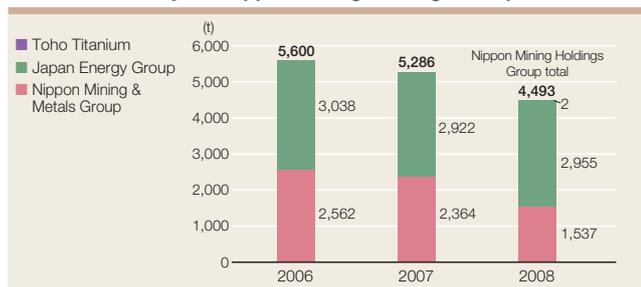
The Nippon Mining Holdings Group monitors gas emissions from its facilities based on the Clean Air Act, ordinances, agreements and voluntary standards. Further, in order to prevent air pollution by the production processes of our plants, we have installed a range of environment-friendly equipment, and use fuel low in sulfur and nitrogen.

In the fiscal year ended March 31, 2009 we reduced emissions of sulfur oxides (SOx) and nitrogen oxides (NOx) from the previous year.

### SOx Emissions by the Nippon Mining Holdings Group



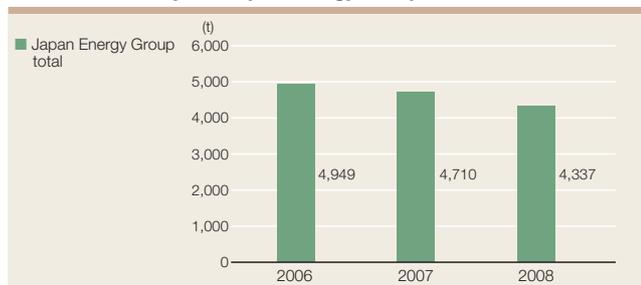
### NOx Emissions by the Nippon Mining Holdings Group



Emissions by the Japan Energy Group have been adjusted to correspond with a revision in the calculation standards for certain operations at its oil refineries.

Figures for emissions for past years at certain of the business facilities of the Nippon Mining & Metals Group have been restated. Figures for the Nippon Mining Holdings Group may not exactly match the total sum of the operating companies due to rounding up or down.

### VOC Emissions by the Japan Energy Group



2008 figures for the Japan Energy Group include 27 tons recorded for Japan Energy Development.

### Japan Energy Group

The group uses low-sulfur fuel for furnaces and boilers in order to reduce SOx emissions. Also, thanks to the use of environment-friendly equipment, the group's emissions are at least 65% below the regulatory limit. In order to curb NOx emissions, the group uses low-nitrogen fuel for furnaces and boilers. And, through the use of emission-removal equipment, emissions are more than 50% lower than the regulatory limit.

In efforts to reduce emissions of volatile organic compounds (VOCs), the group plans to curb the evaporation of VOCs from stored crude oil by rebuilding seven fixed-roof tanks into floating-roof tanks by the end of fiscal 2009 (March 2010). Work on two of these tanks at the Funakawa Works was completed in fiscal 2007 and 2008, and that on the remaining five is currently ongoing.

### Nippon Mining & Metals Group

In the reporting period, operating sites in Japan reduced SOx emissions by 106 tons and decreased NOx emissions by 360 tons year-on-year. They achieved those reductions by improving the sulfuric acid inversion rates at copper smelters, increasing the volume of electricity generated by turbines that effectively use recovered steam and completely halting operations of diesel electric generators that run on heavy fuel oil. At the same time, NOx emissions were reduced by 360 tons, achieving an improvement in the emissions intensity.

At overseas operating bases, some of which rely on in-house power generation based on diesel engines due to the instability of local electricity supplies, only nine months worth of emissions were recorded due to a reduction in production volume and changes in the balance-sheet date. For this reason, SOx and NOx emissions posted a decrease from the previous year. Moves are underway to switch to purchases of power from utilities companies in place of in-house generation, and specific decisions will be taken after assessing the reliability of the local power supply and the economic feasibility of power prices.



Saganoseki Smelter & Refinery

# Chemical Substances Management

## Management of chemicals

The Nippon Mining Holdings Group sets out emissions reduction targets for each of its operating bases and affiliated companies and appropriately manages chemicals based on the Pollutant Release and Transfer Register Law (PRTR)\*1.

The Japan Energy Group discloses the emissions and transfer volumes of each oil refinery and delivery terminal on its website.

Reporting on 45 substances, the Nippon Mining & Metals Group emitted and transferred a total of 294 tons\*\*2, down 3 tons year-on-year. The decrease was, in part, attributable to contributory factors that include curbing the release of heavy metals into the atmosphere from copper smelting processes by actively preventing dispersal and installing electrostatic precipitators based on source investigations. Reduced production volume was also a factor in the decrease in both emissions and transfers, despite an increase due to the start-up of new businesses.

\*1 PRTR Law aims to promote improvement of the monitoring and management of the release of designated chemical substances into the environment.

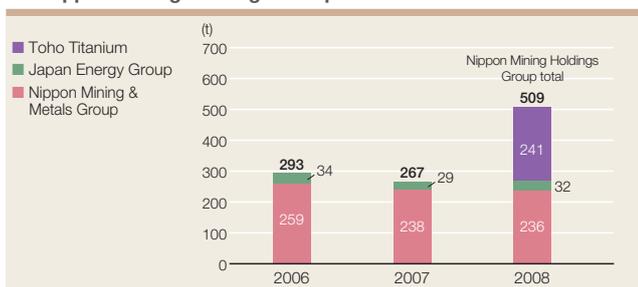
\*\*2 Only operating bases within Japan to which the PRTR Law applies are covered.

### Total release of designated chemical substances of the Nippon Mining Holdings Group



2008 figures for the Japan Energy Group include 212 tons recorded for Japan Energy Development (portion shaded in green).

### Total transfer of designated chemical substances of the Nippon Mining Holdings Group



Data for fiscal 2008 includes figures for Toho Titanium.

## Management and detoxification of PCB waste

The operating companies of the Nippon Mining Holdings Group appropriately store and manage capacitors and oil containing PCBs. Regarding those items, including stored items and items in use, we used the early registration system of the Japan Environmental Safety Corporation and completed registration in the fiscal year ended March 31, 2006. Based on that company's plan, the company will complete processing for our benefit by March 2015.



Inside a storage facility

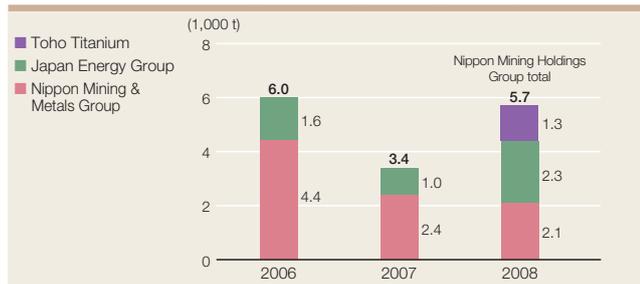
## Conformance with EU's REACH regulations on the handling of chemicals

The European Union commenced the application of new regulations relating to chemical products with effect from June 2008. This system, known as REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), which is based on the principle of preventive action, aims to identify the particular characteristics of each chemical and the risks it poses, based on standardized management of chemicals transported within the EU, and to clarify the potential environmental effects of such substances. In fiscal 2008 Japan Energy and Nippon Mining & Metals registered with the EU all chemicals believed to fall under the scope of these regulations.

## Reducing Waste and Increasing Recycling

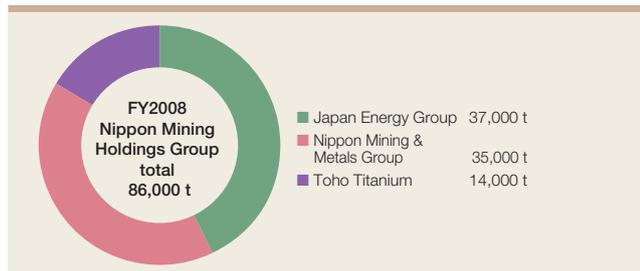
Landfill waste generated by the Nippon Mining Holdings Group in the fiscal year ended March 31, 2009 increased by 1,300 tons over the previous year, owing to the inclusion of Toho Titanium within the scope of consolidation. Owing to this and the addition of contaminated soil processed by Japan Energy, the total amount of landfill waste generated by the Nippon Mining Holdings Group came to 5,700 tons, representing an increase over the previous year.

### Waste to landfill of the Nippon Mining Holdings Group



Fiscal 2008 data for the Japan Energy Group includes 20 tons recorded for Japan Energy Development.

### Total landfill waste generated by the Nippon Mining Holdings Group



### Japan Energy Group

Waste generated at refineries includes waste oil, sludge, waste acid, waste alkali, dust collected from electrostatic precipitators, used catalysts and construction materials. The group reduces waste volumes through intermediary treatment, including the recovery of oil from waste oil and sludge and the dehydration or incineration of sludge. Moreover, we are undertaking initiatives to make effective use of such waste. For example, the group re-refines waste oil, makes sludge and dust into raw material for cement, and recycles resources by separating the remains of construction material such as scraps of metal and concrete.

In the fiscal year ended March 31, 2009 waste to landfill increased sharply by 1,293 tons year-on-year, to 2,297 tons, and the landfill ratio was 2.9%. This is attributable to soil decontamination processing being carried out since fiscal 2005 at the Funakawa Works.

### Nippon Mining & Metals Group

The Nippon Mining & Metals Group is targeting a 30% reduction\* in waste to landfill intensity over the five years from April 2006 to March 2011, taking the average value for the period between April 2003 and March 2006 as a benchmark. In the fiscal year ended March 31, 2009 the group significantly reduced waste to landfill by 60%, well over the target of 18%.

In the fiscal year ended March 31, 2009 the Nippon Mining & Metals Group generated a total of 216,000 tons of waste. Of that, 84%, or 181,000 tons, was internally recycled, and the total volume of final emissions was 35,000 tons. Of that, excluding externally recycled waste, landfill was approximately 2,100 tons, 300 tons less than in the previous fiscal year. The group achieved that reduction by repeat use of the entire amount of neutralized slag at operating bases related to smelting and refining, and by lowering waste acid volumes through continued operational improvements at the operating bases of the electronic materials business.

\* The reduction target for fiscal 2008 was revised to 70%.

### By-products

In the fiscal year ended March 31, 2009, by-product sales amounted to 3,600,000 tons, which comprised 1,694,000 tons of sulfuric acid, 1,265,000 tons of slag\*<sup>1</sup>, 141,000 tons of iron concentrate\*<sup>2</sup> and 501,000 tons of gypsum.

Slag is used as a material for sandblasting, a raw material for cement, a filling material for caissons and an aggregate material for wave-breaking blocks, while iron concentrate and gypsum are used as raw materials for cement.

\*<sup>1</sup> Slag: composite oxides containing iron, silicon and other materials produced by the flash furnace processes at smelting and refining works and the melting furnaces of recycling companies.

\*<sup>2</sup> Iron concentrate: a high-iron-content powder obtained by beneficiating the converter slag of smelting and refining works.

### Sales of by-products of the Nippon Mining & Metals Group



Filling caissons\* with copper slag

\* Caissons: hollow concrete boxes used for underwater construction of such structures as bridge foundations, breakwaters, etc.



## Environment-Friendly Initiatives at JOMO Service Stations

In collaboration with JOMO service station dealerships, Japan Energy implements measures to save energy, recycle waste, reduce water used to wash cars, prevent soil contamination and curb vapor emissions from gasoline and other substances.

### Promotion of energy saving

In 2006, JOMO service stations began introducing energy-saving lighting systems—jointly developed by JOMO Enterprise Co., Ltd. and Toshiba Corporation in 2005—in order to mitigate global warming by using less electricity. In the fiscal year ended March 31, 2009, 88 JOMO service stations changed over to energy-saving lighting systems, reaching a total of 378. In the fiscal year ending March 31, 2010, plans call for the installation of similar systems at 100 service stations, which will give a total of 478 service stations with energy-saving lighting systems.

### Installation of solar power panels on service station roofs

JOMO service station operators are introducing clean solar power generation systems by installing solar power panels on their roofs. As of March 31, 2009, 16 service stations used solar power generation systems.



A JOMO service station with solar power panels

### Appropriate waste treatment

An affiliate, JOMO Guardian Co., Ltd., is contracted to treat industrial waste that JOMO service stations produce, such as waste oil and waste elements. JOMO Guardian processes industrial waste by recycling waste oil, selecting reliable waste treatment service providers, concluding contracts, providing support for manifest management and managing data on waste disposal items. The affiliate also collects information from waste treatment service providers and various bodies on the waste disposal methods of respective local authorities or related revisions, which it provides as needed to JOMO service stations.

### Reusing car wash water

Because JOMO service stations use large amounts of water to wash cars, the station operators have installed recycling equipment that allows effective use of water resources by recycling 80% to 90% of wastewater.

### Collecting fuel-oil vapor

When tank trucks fill JOMO service station tanks with gasoline and other oils, vapors containing hydrocarbons escape. As well as causing photochemical smog, those vapors can cause foul odors in surrounding areas and harm the health of service station customers and employees. Therefore, since 1990 we have been changing over to service station tank vents that have recovery devices which collect and return vapors to tank trucks.

### Purifying wastewater

Surface wastewater at JOMO service stations is collected in oil separating tanks, and water is discharged after oil and sludge have been removed.

### Preventing soil contamination

The Japan Energy Group has implemented JOMO fuel leakage risk control since 2002. These measures entail investigations of oil contamination risks and the removal of pollutants, the upgrading of facilities and prioritized monitoring in accordance with plans. As of March 31, 2009, the Japan Energy Group had carried out secondary surveys of 446 JOMO service stations. The results of the surveys show that remedial work was being planned and undertaken for the soil and groundwater at 24 service stations. Simultaneously, preventative countermeasures were being taken to protect the soil around underground tanks. We will reduce risk by encouraging a change-over to highly safe underground facilities, such as double-walled tanks and plastic pipes. In the fiscal year ended March 31, 2009, the group undertook related measures at 11 service stations. From fiscal 2009, we are also encouraging JOMO service stations to introduce devices that will facilitate the

early detection of oil leaks.

In April 2008, voluntary investigations of soil and groundwater contamination on the premises of two service stations affiliated with Japan Energy—JOMO Value5 Kurashiki in Kurashiki City, Okayama Prefecture, and JOMO Todoroki Station in Setagaya-ku, Tokyo—revealed higher levels of benzene than environmental standards permit. In July 2008, similar voluntary investigations of soil and groundwater contamination on the site of a former JOMO service station affiliated with Japan Energy—also located in Kurashiki—showed levels of benzene and lead exceeding the permitted levels. In addition to reporting these cases to regulatory authorities, the group took appropriate steps that included the replacement of soil.

Soil contamination investigation



## Green Products and Services

This section introduces some of the petroleum products, metal products and related services provided by the Nippon Mining Holdings Group's core operating companies Japan Energy and Nippon Mining & Metals. Also, this section reports on both companies' environment-friendly initiatives.

### Japan Energy Group

#### Environment-friendly fuel oil

Japan Energy produces environment-friendly gasoline and gas oil products that help reduce CO<sub>2</sub>, the main cause of global warming, and toxic substances in vehicle exhausts.

##### ● Sulfur-free fuel

"Sulfur-free" gasoline and gas oil contain extremely small amounts of sulfur, 10ppm or less, or 0.001% or less. The use of sulfur-free fuel will contribute to the durability and enhance the processing capacity of exhaust gas treatment, leading to cleaner exhaust gas. Thanks to greater fuel efficiency, CO<sub>2</sub> emissions are expected to decline, and this will serve as an effective global warming countermeasure.

Japan introduced regulatory limits for sulfur (amounts of 10ppm or less) in gas oil in 2007 and in gasoline in 2008. Ahead of the introduction of those regulations, Japan Energy began providing sulfur-free premium gasoline from May 2002 and sulfur-free regular gasoline and gas oil from January 2005.

##### ● Biogasoline

To reduce CO<sub>2</sub> emissions from automobiles, the use of carbon-neutral biomass fuel is gaining widespread attention. Japan Energy has been actively participating in tests of biomass fuels, such as ETBE\*1, ethanol, and BDF\*2, being conducted by the government. The company is also making active efforts to develop in-house high-quality biomass fuels suitable for automotive applications. We are also conducting research on preliminary treatment processes and glycosylation technologies required in the process for producing ethanol from cellulose-based non-food biomass sources.



\*1 Ethyl Tertiary Butyl Ether: a gasoline-base product made from bioethanol.

\*2 Bio Diesel Fuel: a fuel derived from vegetable oil and other renewable resources for use in diesel engines.

#### Environment-friendly petrochemical products

For its wide range of petrochemical products including industrial detergents and industrial solvents, Japan Energy is developing environment-friendly products that do not contain chlorine, toluene and xylene, which affect health and the environment and are designated substances under the Occupational Health and Safety Law and the Pollutant Release and Transfer Register (PRTR) Law.

The company has developed "NS Clean," a series of hydrocarbon cleaners based on the concept of cleaners that contribute to society by reducing the use of harmful solvents. The series has been winning praise in many industries for being eco-friendly and suitable for working environments, and thus responsive to the needs of the current age. With regard to the conversion to cleaning systems compatible with "NS Clean," we are providing detailed support to customers in terms of both the equipment and know-how, utilizing our wealth of expertise.

#### Environment-friendly lubricating oils

Japan Energy has a good track record in the marketing of environment-friendly lubricating oils. In February 2004, the group launched the JOMO ECO Series as an energy-saving, long-life, biodegradable lineup that complies with environmental regulations. All JOMO Bio Series products (part of the JOMO ECO Series) have acquired the Japan Environment Association's Eco Mark as products that do not adversely affect the natural environment, because even in the event of leakage they can be broken down quickly using microorganisms.

(Eco Mark certification numbers)

Bio Turbine 32: 05 110 008 / 46: 03110 018

Bio Hydro 32: 05 110 007 / 46: 03110 019

Bio Eletus 04 110 027

Bio Dritus 08 110 004

Bio Grease EP: 04 110 026



JOMO Bio Hydro

#### Environment-friendly LPG

LPG (liquefied petroleum gas) is a cleaner energy than unprocessed fossil fuels with several advantages: it emits less CO<sub>2</sub> than oil or coal when combusted and does not produce soot or ash. Japan Energy is working to promote the widespread adoption of "ECOWIL," its eco-friendly LPG-based gas cogeneration systems, and LPG vehicles.

### Introduction of the permanent cathode method

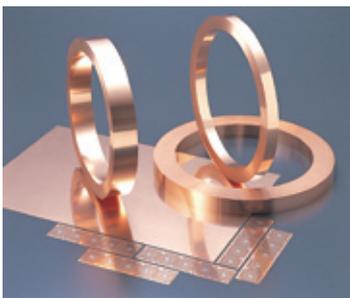
In refining processes for the production of refined copper, the Nippon Mining & Metals Group has established and introduced the permanent cathode method as a production technology that results in better-quality refined copper and higher electric current efficiency than conventional methods. The permanent cathode method entails refining copper by using a stainless steel plate as a cathode, which increases energy efficiency and production capacity.



Refined copper produced using the permanent cathode method

### Highly recyclable copper alloys with advanced functionality

Metal recycling is difficult when alloys contain elements harmful to humans, or when the elements contained in alloys are not known. Such electronic device components as connectors and switch contacts are becoming smaller, thinner and more densely packaged. Nippon Mining & Metals uses original high-precision production process technologies to create products that have advanced functionality and are easily recycled.



Hyper Series copper and special steel products that have the same constituents as conventional products, maintain recyclability and realize significantly improved functionality.

### Pioneering the development of lead-free electro-deposited copper powder

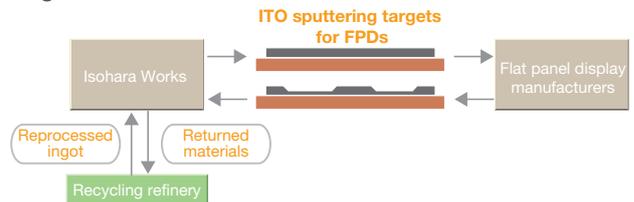
With the increasing emphasis on environment-friendly manufacturing, calls have grown for the reduction of harmful substances in raw material powders used in powder metallurgy, conductive pastes and other electronic materials. A particular concern is lead impurities in electro-deposited copper powder. The conventional electro-deposition method produces copper powder that contains approximately 100 to 1,000ppm of lead impurities. Nippon Mining & Metals' Electronic Materials Group contributes to the realization of lead-free electronic devices by providing a stable supply of lead-free electro-deposited copper powder with lead content of 1ppm or less. The company achieves this by using a titanium electrode coated in precious metal as an indissoluble positive electrode in the electrolytic copper-removal process.

### Using recycled resources

The Nippon Mining & Metals Group conserves resources in the production of the electronic-use electro-deposited copper foil by using remnant materials from copper electric wire and cable plants as the main raw material as well as reusing mill-ends from the electro-deposited copper foil process as a raw material. Other efforts to effectively reuse resources include creating raw material ingots by the refining of materials from ITO sputtering targets, which customers return to us after producing flat panel displays\*.

Further, in the manufacture of copper and copper alloys, the group uses virgin raw materials, which are smelted and refined from copper concentrate and recycled scrap materials. The Kurami Works effectively uses resources by reusing mill-ends generated in production processes as raw materials and collecting and recycling commercial scrap.

### Recycling of materials from returned ITO sputtering targets for FPDs\*



\* Flat panel displays (FPDs): liquid crystal, plasma and other flat panel displays.

# Together with Our Stakeholders

As a corporate citizen, the Nippon Mining Holdings Group aims to fulfill its social responsibilities, build relationships of trust with its stakeholders, and contribute to the sustainable development of society at large.

## Together with Shareholders and Other Investors

### Measures to revitalize general meetings of shareholders and further facilitate the exercise of voting rights

Nippon Mining Holdings strives to achieve the early dispatch of convocation notices for annual general meetings of shareholders. The Group sent notice of the 7th Annual General Meeting of Shareholders, held on June 25, 2009, more than three weeks prior to the meeting, on or before June 2nd. In addition, Japanese and English convocation notices are available on the Company's website. In order to avoid the June 26 "peak" date, when most companies hold their regular shareholders' meetings, the Group set the date of the 7th Annual General Meeting of Shareholders one day before. Also, we facilitate the exercise of voting rights by enabling online voting.

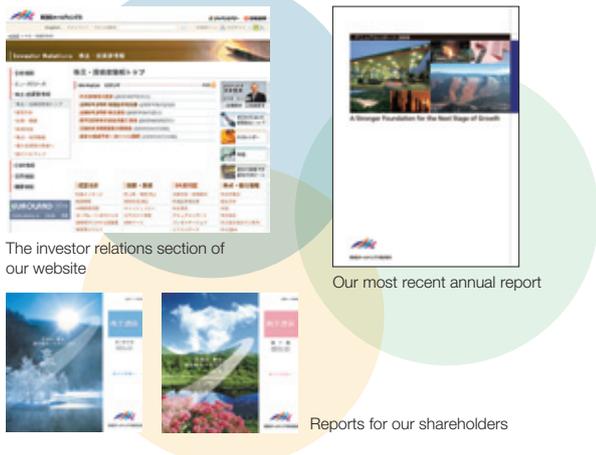
### Investor relations activities

Nippon Mining Holdings aims to achieve highly transparent management through prompt, appropriate and equitable disclosure to its shareholders and other investors. As well as disclosing in compliance with related laws and statutory regulations, the Company actively releases information about management policies and operations to achieve widespread understanding of the Nippon Mining Holdings Group's business activities. Also, through presentations of financial and business results and the medium-term management plan, we aim to provide an adequate range of opportunities for investors to receive explanations directly from the president of Nippon Mining Holdings. Furthermore, we strive to communicate our activities through our website in a fair and readily understandable manner.

For investors, we held meetings in February 2009 in Tokyo, and staged a roundtable session for shareholders at which the president outlined the Group's business environment. In addition to holding presentations for individual investors at major cities across Japan, we hold quarterly results briefings for analysts and institutional investors and briefings on the medium-term management plan. For overseas investors, we organize road shows and briefings by the president and other high-ranking officers in charge of financing on the medium-term management plan and our progress in implementing it.

Our website carries details of business policies, information on our financial position and business performance, press releases, various investor relations materials and stock information.

Moreover, in order to facilitate equitable disclosure, we release on our website written and video materials from roundtable sessions for shareholders and briefings for analysts and institutional investors.



Together with Our Stakeholders

### Evaluation from external organizations

Nippon Mining Holdings website received the 2008 Internet IR Best Company Award (By Industrial Segment) from the Daiwa Investor Relations Co., Ltd. And, in a survey of the websites of all listed companies conducted by Nikko Investor Relations Co., Ltd., our website was selected as a superior website under its general ranking.

Also, shares issued by the Company were selected for the Morningstar Socially Responsible Investment Index (MS-SRI) in September 2008. In addition, the Company's shares were chosen for the calculation of the Dow Jones Sustainability Asia Pacific Index Company (DJSI AP) in March 2009.

Moreover, the Company was selected again for the calculation of both the MR-SRI and the DJSI AP indexes in September 2009.



## Together with Our Customers

### Protection of personal information

In accordance with the Act on the Protection of Personal Information, Nippon Mining Holdings has established rules for personal information protection and developed a system for protecting personal information that covers the entire Nippon Mining Holdings Group.

In addition, respective Group companies conduct basic education on the Act on the Protection of Personal Information through e-learning and presentations incorporating videos and other visual media, in order to further understanding of the law and ensure stringent compliance with laws and statutory regulations. Each Group company includes the Nippon Mining Holdings policy on the protection of personal information on its website.

The Nippon Mining Holdings Group's personal information protection policy

<http://www.shinnikko-hd.co.jp/privacy/> (Japanese language)

### Improvement of customer satisfaction

To obtain customer feedback on its services, Japan Energy encourages customers to voice their opinions and requests regarding JOMO service stations by contacting the JOMO Customer Center, which was set up in July 1998. To improve the quality of customer service, we are making proposals on service station operations to more carefully meet the needs of elderly customers or those with children in tow. Japan Energy enters information regarding customer inquiries into a database for use in the preparation of improvement targets, and shares this information across the JOMO service station network to further improve customer satisfaction.

Japan Energy has been conducting customer satisfaction surveys at 2,000 JOMO service stations nationwide since 1994. In addition, since October 2006 the company has been running a "mystery shoppers program," in which specially selected consumers conduct marketing research for the company by visiting JOMO service stations. This enables the company to get an unbiased view of fueling, maintenance, customer service, shop facilities and cleanliness from the customer's perspective. Using the results of these surveys, Japan Energy develops activities to improve customer satisfaction.

To become the company of choice for its customers, Nippon Mining & Metals reflects customer feedback in steps to improve products and services. Aiming to develop a system that facilitates the stable, efficient production of high-quality products satisfying customers' specific requirements, product specifications and standards, the company has obtained ISO 9001 certification, the internationally recognized standard for quality management systems. In addition, the company employs various practices for making improvements to its production and business processes, including NPM\*<sup>1</sup> (Nippon Mining & Metals Total Productive Maintenance) and IS2\*<sup>2</sup> (Isohara's two) activities. In this way, the company's plants are taking measures to improve customer satisfaction based on specific targets for reducing the number of customer complaints.

In October 2008, the JOMO Nomura Station (in Takaoka City, Toyama Prefecture) was found to have made improper charges to some of the station's customers. An employee of the station embezzled sales revenues and petty cash funds, and to prevent detection of the missing funds, the employee charged that amount to customers paying with credit cards, and entered the improper data. We apologized to the customers who were improperly billed, explained the causes of the incident, and repaid the full amount.

\*1 At Nippon Mining & Metals, we have adapted the Japan Institute of Plant Maintenance's Total Productive Maintenance concept to create NPM, or Nippon Mining & Metals Total Productive Maintenance, comprising activities aimed at minimizing all kinds of losses due to such factors as disasters, accidents and defective products.

\*2 Nippon Mining & Metals' Isohara Works in Ibaraki Prefecture puts its management focus on both development and passing on to the next generation the accumulated technical expertise. It makes improvements in the manufacturing process on a project basis using the Six Sigma approach (for identifying and removing the cause of errors), and also through the adoption of Toyota's front line-oriented approach (which entails doing everything possible to improve work processes).

### Other customer-friendly initiatives at JOMO service stations

#### "Value Style" service stations

We contribute to customer comfort by separating waiting rooms at JOMO service stations into smoking and non-smoking areas, and by providing cafes and kids' corners. A total of 628 service stations had introduced these facilities as of March 31, 2009.

#### Barrier-free service stations

Japan Energy is developing JOMO service stations that incorporate such universal design features as access ramps, automatic doors, sliding doors and restrooms accessible to wheelchair users.

Information on JOMO service stations with barrier-free restrooms can be found at the Japan Energy website.

<http://www.j-energy.co.jp/station/ss/> (Japanese language)



A Value Style service station



An automatic door with a ramp



Value Style store interior

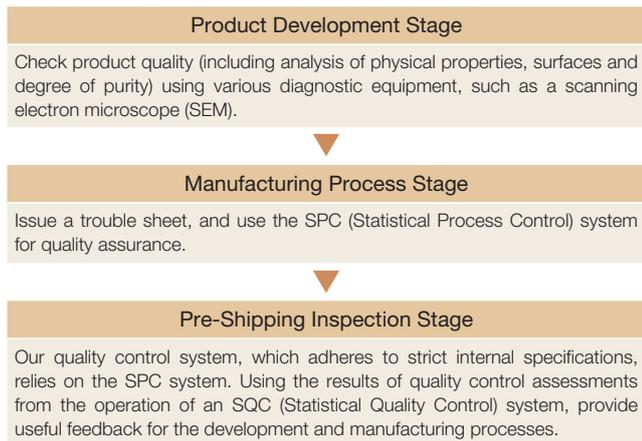
## Construction of a quality assurance system

Keenly aware that quality is fundamental to customer satisfaction, the Japan Energy Group prepared a common Quality Policy for the group in 2006. Further, Japan Energy established the Liaison Meeting of Quality Assurance Personnel as a Japan Energy Group organization. At the same time, the group created a quality assurance and quality control advancement system based on the establishment of administrative departments for each product range. The Japan Energy Group is also introducing systems to facilitate future improvements in product quality and core technologies required for the enhancement of quality features that reduce environmental load.

For each of its operations, the Nippon Mining & Metals Group is building integrated quality assurance systems that include staff in charge of sales, manufacturing, technology and product development. For example, the following is the flowchart for the quality control process implemented by its electronic materials business.

Japan Energy and Nippon Mining & Metals are also constructing quality assurance systems based on ISO 9001.

### The flow of quality control conducted by Nippon Mining & Metals for its electronic materials business



## Product safety

Nippon Mining & Metals takes a proactive approach to product safety. In addition to complying with related laws and statutory regulations, the company considers the safety of products at all stages—from development and production through to sales—with individual consideration being given to each product in light of its characteristics. Further, the company provides material safety data sheets for all products to ensure the safety and health of those handling products. Dealing with 2 million tons of sulfuric acid annually, Pan Pacific Copper Co., Ltd. uses material safety data sheets on the handling of chemicals to rigorously educate staff belonging to divisions and the companies responsible for transportation. Similarly, Japan Energy also provides material safety data sheets for all of its products.

A material safety data sheet



## Participating in various exhibitions

As part of efforts to cultivate relationships with customers and provide even better products and services, the companies of the Nippon Mining Holdings Group actively exhibit at events showcasing leading-edge technologies.



The Japan Energy booth at the Energy Solution & Thermal Storage Fair 2008



The Nippon Mining & Metals booth at NEPCON WORLD JAPAN 2009

## Awards from customers

### Awards received from customers by the Nippon Mining & Metals Group in fiscal 2008 (ended March 31, 2009)

Clients/Awards
Intel Corporation/Preferred Quality Supplier Award
Showa Denko K.K./Supplier Appreciation Award
Dowa Eco-System Co., Ltd. presents an award to a Nippon Mining & Metals Group affiliate, Nippon Marine Co., Ltd., for contributing to the safe transport of contaminated soil.

As a supplier of products that underpin advanced technologies, the Nippon Mining & Metals Group aims to realize quality, technological capabilities and stable supplies in its everyday business activities. Those efforts have earned recognition from a variety of customers in the semiconductor industry and other industries.



A representative of Nippon Mining & Metals receives the Intel Corporation Preferred Quality Supplier Award

## Together with Our Business Partners

### Integrating purchasing through Nippon Mining Procurement

In order to ensure stable and efficient purchasing, Nippon Mining Procurement Inc. is solely responsible for purchasing for the core operating companies of the Nippon Mining Holdings Group. In accordance with our purchasing policies, Nippon Mining Procurement handles purchasing in an equitable and highly transparent manner. In 2006, the company initiated a purchasing system that is compliant with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and enables socially responsible purchasing. Based on that system and the mutual trust it engenders, the Group is building partnerships with business partners.

### Green purchasing initiatives

Environmental protection is included in the “Course of Action for Purchasing Deals” set out in Nippon Mining Procurement’s purchasing policies. By advancing green purchasing, the company intends to contribute to the creation of a recycling-oriented society and prevention of global warming. Nippon Mining Procurement sends questionnaires to suppliers and gives priority to purchasing from those with environmental measures above certain benchmarks. The company requests suppliers that do not meet those benchmarks to step up their environmental measures.

### Receiving evaluations from business partners through questionnaire surveys

Through the use of questionnaires, Nippon Mining Procurement accepts requests from business partners and gets their valuable feedback. In the fiscal year ended March 31, 2008, 293 companies responded to a questionnaire on progress in implementing “Our Promise to Business Partners” and the “Course of Action for Purchasing Deals” set out by Nippon Mining Procurement. The company received favorable evaluations from many business partners for putting its policies into practice, and undertook an update of the Group’s website. In the fiscal year ended March 31, 2009, the company worked to further familiarize suppliers with its green procurement systems and purchasing policies and posted commonly asked questions on its website with the aim of improving convenience for suppliers.

Nippon Mining Procurement website

<http://www.shinnikko-pr.co.jp/> (Japanese language)

### Nippon Mining Procurement purchasing policies

#### ❖ Role ❖

1. We will provide the operating companies of the Nippon Mining Holdings Group with the necessary materials and services in the most efficient and stable manner.
2. We will contribute to the competitiveness of the operating companies of the Nippon Mining Holdings Group by working with them to reduce their costs for the procurement of materials to be purchased.
3. We will conduct business with high levels of precision, speed and transparency so that we can gain the trust and satisfaction of the operating companies of the Nippon Mining Holdings Group.
4. We will share information with the Group’s operating companies in order to make both parties aware of the progress and results of the purchasing process and thus strengthen the purchasing functions of the Nippon Mining Holdings Group.
5. We will make purchasing information available to suppliers so that we can offer the maximum number of business opportunities.

#### ❖ Course of action for purchasing deals ❖

1. **Transparency:** Purchasing deals will be carried out in an open manner from start to finish.
2. **Fairness:** Selection of suppliers will be carried out based on fair evaluations.
3. **Rigorous legal compliance:** During purchasing deals, we will comply with all related regulations, and will not only observe the individual clauses of each law, but will also adhere to the spirit of the law.
4. **Environmental protection:** We regard the environment as the most important thing, and endeavor to “purchase green.”
5. **Mutual trust:** We will build relationships of trust with our suppliers, based on equal partnerships.
6. **Ethics:** The person in charge of purchasing will keep fair relationships with business partners based on a rigorous ethical viewpoint.

#### ❖ Our promise to suppliers (fundamental rules for purchasing deals) ❖

1. **Fair entry opportunities:** We will give companies that wish to trade with us a fair opportunity to do so, and will respond with sincerity to any proposals.
2. **Fair evaluation:** Selection of suppliers will be conducted based on a fair evaluation of product quality, price, delivery schedules, performance and other factors.
3. **Clear specification of purchasing procedures:** We will clearly publicize the Course of Action for Purchasing Deals, the Fundamental Rules for Purchasing Deals, registration procedures for new suppliers, various procedures from ordering through payment, and the contact details for staff in charge.
4. **Management of confidential information:** We will strictly manage information received in the course of purchasing operations and ensure maintenance of confidentiality.
5. **Disclosure of the reasons behind selections:** Where suppliers are not selected in tenders or competitive bids, we will clearly inform them, if requested, of the reasons for our decisions.

## Together with Our Employees

### Respect for human rights

Nippon Mining Holdings Group believes that respect for human rights is fundamental to building relationships not only with employees but also with all stakeholders. The Nippon Mining Holdings Group Compliance Basic Regulations set out the Group's basic position on respect for human rights by including a prohibition of unfair discrimination, sexual harassment, child labor and forced labor.

Nippon Mining Holdings and its subsidiaries Japan Energy and Nippon Mining & Metals have clearly indicated their respect for human rights by becoming signatories to the United Nations Global Compact, while Nippon Mining & Metals is also a member of the International Council on Mining and Metals.

### Creating a more inclusive workplace for women

Nippon Mining Holdings Group aims to increase the employment of women while creating workplace environments that empower female employees to play active and significant roles.

Of Japan Energy's 235 female employees, six are in middle-management positions. The company intends to increase the recruitment of women while expanding the areas in which female employees can work. To that end, as an organizational initiative the company is supporting female employees who want to increase their expertise and develop their careers by providing opportunities for studying overseas in association with Japanese universities and assigning female employees overseas. Further, of the 995 female employees working at the 25 domestic companies and 14 overseas affiliates of the Nippon Mining & Metals Group as of March 31, 2009, 123 were in junior managerial positions\* or above.

\* Junior managerial positions: supervisors or the equivalent.

### Supporting work-life balance

Based on a belief in the importance of achieving a work-life balance, Nippon Mining Holdings Group is actively creating systems that enable employees to simultaneously meet their work and family commitments. Group companies are developing various support systems and implementing, expanding and upgrading educational programs to raise awareness.

Japan Energy has developed a human resources system based on the Law for Measures to Support the Development of the Next Generation, which requires companies to prepare concrete action plans to help employees balance work and childcare. The government has recognized Japan Energy as a company that supports childcare, and has given it permission to use the next-generation certification logo. The company has since prepared a two-year action plan that calls for lengthening



Editing the Work-Life Balance Handbook (Japan Energy)

The handbook provides support for working mothers

childcare leave and strengthening support for those returning to work after childcare leave.

In compliance with various laws and statutory regulations, Nippon Mining & Metals operates childcare and nursing-care leave systems and systems for shortening working hours. In the fiscal year ended March 31, 2009, among the female employees of Japan Energy and Nippon Mining & Metals, 14 used systems for leave before childbirth, after childbirth or for childcare.



An employee who has used the leave system for childcare (Nippon Mining & Metals)

Details regarding childcare and nursing-care leave systems appear in the Nippon Mining & Metals' Sustainability Report 2009, available on the following website:

<http://www.nikko-metal.co.jp/sustainability/>

### Introduction of reemployment system for retirees

In accordance with the Revised Law Concerning Stabilization of Employment of Older Persons, the Nippon Mining Holdings Group operates a reemployment system for employees aged 60 and above who have reached retirement age. We expect that the reemployment of retirees will not merely engage them in day-to-day duties but will enable them to pass on technological know-how and skills to younger employees and contribute to operational management by maintaining and improving safety and quality control. In the fiscal year ended March 31, 2009, 26 of 34 Japan Energy Group retirees and 35 of 51 Nippon Mining & Metals Group retirees were reemployed.

### Encouraging the employment of the physically challenged

At the Nippon Mining Holdings Group in Japan, we are taking steps to create workplaces that are safe and easy to work in for physically disabled individuals. As of March 31, 2009, the Japan Energy Group employed 33 physically disabled individuals, which represented 1.91% of the workforce. Further, in the fiscal year ended March 31, 2009, on average physically disabled employees accounted for 1.93% of the workforce. Meanwhile, the Nippon Mining & Metals Group met the legally required 1.8% physically disabled employment ratio as of June 1, 2009. We will not only maintain, but also raise the percentage of physically disabled individuals that we employ.

## Countermeasures for the recession in fiscal 2008

From the second half of fiscal 2008 onward the global economy experienced a dramatic slowdown, forcing the Nippon Mining Holdings Group to curb production on some of its lines. Through discussions between the labor union and management, the Group has devised countermeasures that include a temporary halt in production lines and in-house transfers of personnel as well as short-term layoffs, thereby maintaining regular employment at existing levels. Regarding the termination of employees with fixed-term employment contracts, we are making efforts to strictly observe all labor laws and regulations, while attempting to devise appropriate countermeasures. With regard to overseas operations, we are working to restructure the business operations at each company, measures which fall within the jurisdiction of local labor laws and regulations, while taking into account all legal considerations and local labor practices.

## Health

Based on the guidance of industrial physicians, the Nippon Mining Holdings Group and its health insurance union work in close collaboration to manage the health of employees. In fiscal 2008, the Japan Energy Group adopted a systematic approach to the development of a mental care system for employees in line with the government's policy guidelines for promoting the mental healthcare of employees.

In the Nippon Mining & Metals Group, in July 2008 we drafted measures for helping employees maintain their physical and mental well-being. We recognize that good mental health is necessary for creating a happy life for employees and their families and a lively workplace. With this aim in mind, we undertake a variety of activities at affiliated companies in Japan and overseas to raise awareness about the importance of mental healthcare.

Aiming to maintain the mental and physical health of our employees, we support a variety of sports events, provide free use of sports facilities and organize such events as the *Arukearuke* walking event.



The Nippon Mining Holdings Group's *Arukearuke* walking event (December 2008)

## Occupational health and safety initiatives

The Nippon Mining Holdings Group carries out day-to-day business activities based on a firm commitment to protecting the health and safety of workers as its first priority. Guided by their basic health and safety policies, Japan Energy and Nippon Mining & Metals prepare health and safety management policies for each fiscal year that target the elimination of accidents and set out priority measures.

Within the Japan Energy Group, labor and management carefully monitor employees' working hours and paid leave taken, and manage working hours through the limited application of a flextime system to ensure appropriate management of working hours and maintenance of employee health. To minimize accidents on the job, each plant carries out a safety awareness campaign. In the event that an accident does happen, steps that are taken to prevent similar accidents from occurring in the future. Steps include the mandatory submission of an accident report, a report detailing the cause of the accident, and a plan comprising countermeasures to prevent future recurrence.

In 2008, the Nippon Mining & Metals Group saw a year-on-year rise in work-related accidents among the employees at partner companies and inexperienced laborers, as well as an increase in accidents by employees responding to trouble occurring in normal operations and during normal operating hours. In 2009, we have been conducting rigorous training for less-experienced laborers to heighten their awareness of danger. We are carrying out concerted health and safety activities with affiliates and partner companies. We are also working to identify and establish countermeasures against potential accidents in normal operations, and implementing revisions to procedures as required.

However, a major disaster was reported in June 2009. At the Saganoseki Smelter & Refinery of Nikko Smelting & Refining Co., Ltd., three employees of Nissho Shipping Co., Ltd., responsible for the cargo handling of mineral ore, died from a lack of oxygen. The cause of the accident was under investigation as of September 1, 2009. The Nikko Metals & Mining Group is conducting emergency safety inspections, and is making utmost efforts to take precautions against oxygen deficiency with the aim of preventing accidents.

### Number of occupational accidents

Fiscal year		2005	2006	2007	2008
Resulting in lost work time	Japan Energy Group	2	0	1	3
	Nippon Mining & Metals Group	9	16	8	14
Not resulting in lost work time	Japan Energy Group	3	3	0	2
	Nippon Mining & Metals Group	15	21	13	17

For Japan Energy and Nippon Mining & Metals, in the fiscal year ended March 31, 2009, the frequency rates for injury or death among employees due to occupational accidents per 1 million labor hours were 0.02 and 0.61. The severity rates for labor days lost per 1,000 labor hours were 0.85 and 0.09.

(Reference) In the fiscal year ended March 31, 2009, in Japan the frequency rate was 1.80 for industry as a whole (excluding construction), and the corresponding severity rate was 0.11 (government statistics).

## Together with the Local Community

### Communication with the communities in which we operate

The Nippon Mining Holdings Group invites local residents to participate in study tours of its operating bases. For example, Japan Energy has been holding JOMO Science Classes since 2004 at its R&D Center for an elementary school in Toda City, Saitama Prefecture. And in 2007, Japan Energy responded to a request from Toda's local authorities and began sending its researchers to teach "JOMO I Love Science" classes at an elementary school.

A member of the Nippon Mining & Metals Group, Nikko Tsuruga Recycle Co., Ltd., organizes events and meetings for the viewing and appreciation of the fireflies that appear around the Nikkori River irrigation canal on the company's southern side in collaboration with a local environmental preservation group, Aqua Sangha, and the *Tsuruga Machizukuri Hagi-No-Kai*.

### Clean-up activities in local communities

For many years, in Japan and overseas, employees at the operating bases of Group companies have participated in voluntary activities to beautify the environment by undertaking clean-ups and campaigns to collect garbage and cans.

### Participating in local initiatives to prevent crime and disasters

In order to preserve the safety of local communities, the Nippon Mining Holdings Group undertakes disaster prevention activities jointly with companies and local authorities in the vicinity of its operating bases. In addition, the Group collaborates in crime prevention campaigns.

### Nippon Mining Museum

Built on the site of the former Hitachi Mine, the birthplace of the Nippon Mining Holdings Group, the Nippon Mining Museum exhibits materials from the Group's history, which spans more than 100 years. The Ministry of Economy, Trade and Industry recognized the museum as a modern industrial heritage site in November 2007. More than 20,000 people visited the museum during fiscal 2008. Through such symbolic images as the Giant Stack and tree-planting activities, the museum's displays communicate a philosophy of respect for the global environment and operation in harmony with local communities. As a result, many elementary and junior high schools in Hitachi use the museum as a location and a topic for lessons.



Nippon Mining Museum (far left) and the first mine shaft (front right)

### Providing aid for disaster areas

In order to provide emergency humanitarian assistance when disasters occur, the directors and employees of Nippon Mining Holdings and its core operating companies undertake fund-raising activities, and the Group makes donations matching the amounts collected.

Nippon Mining Holdings Group made donations to help victims of the large tropical cyclone that struck Myanmar in May 2008 and to assist earthquake victims in Sichuan, China in the same month.

Regarding the earthquake in Sichuan, Shanxi Japan Energy Lubricants Co., Ltd., which has 90 JOMO lubricant oil stores across China, participated in aid activities through its stores in Chengdu, Sichuan Province, and provided free hydraulic actuation oil and diesel engine oil for the maintenance of construction machines used in rescue and restoration work. NMC Pearl River Mouth Oil Development Co., Ltd. donated ¥3 million to the Japan Red Cross Society. Together with its partner company, China National Offshore Oil Corporation, NMC Pearl River Mouth Oil Development also provided support for disaster relief efforts by making helicopters temporarily available.

### The JOMO Children's Story Award



The JOMO Children's Story Award

Japan Energy began social initiatives based on the composition of children's stories in 1970.

Since 1973, the company has hosted a children's story competition themed on "heart-to-heart contact." Japan Energy presents awards to the best entries and publishes them as *The Bouquet of Children's Stories*, which is widely distributed among the general public. As well as distributing them to JOMO service station customers, the company donates the books to local schools, nurseries, kindergartens and other facilities. Held in the fiscal year ended March 31, 2009, the 39th JOMO Children's Story Award received 8,611 entries.

Further, Japan Energy set up the JOMO Children's Story Fund in 1992 in conjunction with two nationwide associations (organizations for affiliated stores that sell JOMO brand products—primarily gasoline and LPG).

The fund, receiving revenues from the sale of *The Bouquet of Children's Stories* to employees and affiliated stores, enables JOMO Scholarship Grants for children at child welfare facilities and single mother support facilities across Japan, as well as children brought up by foster parents, provided through the Japan National Council of Social Welfare.

This report and *The Bouquet of Children's Stories* use "3.9 Paper," made from thinning timber\* produced by forest maintenance activities. This system helps preserve Japan's forests and contributes to the enhancement of carbon sinks in the forest.

\* Thinning timber: Thinning refers to the felling of some trees in overly dense forests to let in more light and thereby promote growth. The felled trees are referred to as thinning timber.

### JOMO Sunflowers/JOMO Basketball Clinics

In the 2008 season, the JOMO Sunflowers won both the 75th All Japan Basketball Tournament (Empress' Cup) and the 10th Women's Japan Basketball League Tournament. It was the ninth time the JOMO Sunflowers had won the "double crown" of the Japanese women's basketball tournaments, after a drought of five years. Thanks to everybody who supported them.

Japan Energy has organized its basketball clinics since 1995 to help children learn basic basketball skills. It created a team primarily comprised of Olympic basketball players who used to play in the JOMO Sunflowers, and the clinics are held across Japan to promote sports and deepen communication and friendship with children, the bearers of the future, through basketball.

In addition, Japan Energy is involved in a wide range of social contribution activities, including the support of sports for the physically disabled and sponsorship of guide dog rearing. Further details are available in Japan Energy's CSR reports and on the company's website.



JOMO Sunflowers



JOMO Basketball Clinics (Nikko Metals Phillipines)

### Participating in international activities for the environment and sustainability



Nippon Mining Holdings and Nippon Mining & Metals signed the United Nations Global Compact on August 26, 2008. Japan Energy has been participating in the Global Compact since September 2002. As a result, Nippon Mining Holdings and its two core operating companies are now United Nations Global Compact participants. The companies endorse

and support the Global Compact's ten principles in the areas of human rights, labor, the environment and anti-corruption.

Nippon Mining & Metals is a member of the International Council on Mining and Metals, a global organization engaged in initiatives to enable the sustainable development of the non-ferrous metal industry. Moreover, Nippon Mining & Metals has given its approbation to EITI (Extractive Industries Transparency Initiative) Principles, and will support EITI. In addition, based on its contract with the Japan International Cooperation Agency (JICA), Nippon Mining & Metals sends its engineers to developing countries to help address local environmental problems, such as those caused by inactive mines.

### Supporting the activities of NPO 2050

Nippon Mining & Metals sponsors the initiatives of NPO 2050, which tackles global problems such as rapid population growth, poverty, environmental destruction, and HIV and AIDS. That organization believes the key to solving these problems is to increase the status and quality of life of women in developing nations. Accordingly, NPO 2050 undertakes projects to help women in poor families to become self-reliant through educational funds and agricultural instruction in several Asian countries.

### Sponsored a workshop on CSR in the mining industry organized by the Indonesian government

Nippon Mining & Metals was a joint sponsor of the "Workshop on Corporate Social Responsibility in the Mining Industry, and Seminar on the Rules and Regulations for Mineral Resources Development in ASEAN Member Countries," held in Bali, Indonesia, in July 2008.

At the workshop, attended by approximately 100 people, discussions were conducted to share information focusing on topics such as the support for the promotion of sustainable mineral resource development, useful measures to help mining companies meet their social responsibilities, and mechanisms that enhance the effectiveness of CSR programs.



Workshop participants

# Operating Bases in Japan and Overseas

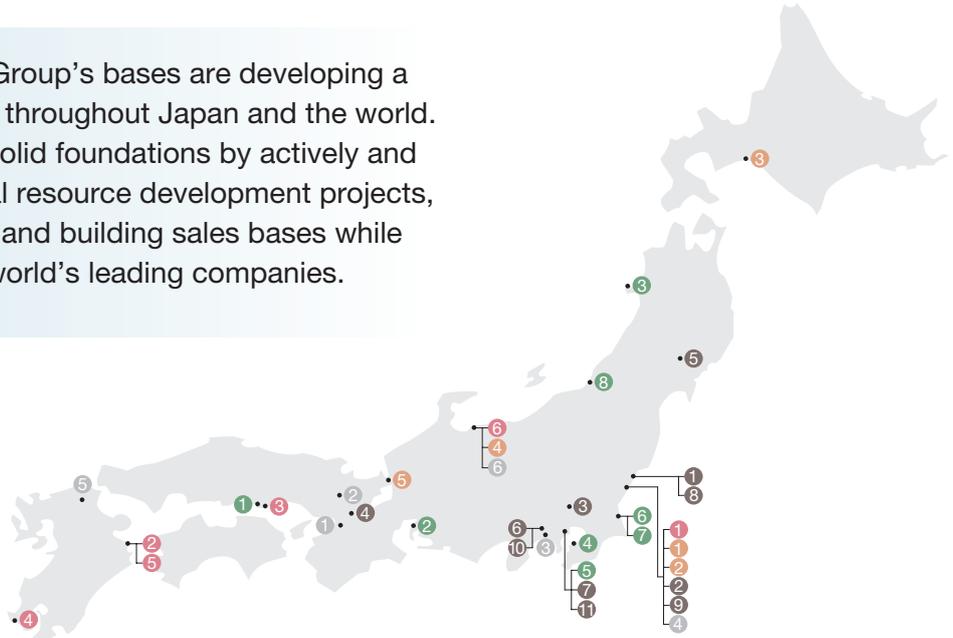
(as of March 31, 2009)

The Nippon Mining Holdings Group's bases are developing a broad spectrum of operations throughout Japan and the world.

We are further cementing solid foundations by actively and globally participating in natural resource development projects, transferring production bases and building sales bases while advancing alliances with the world's leading companies.

## Petroleum (Japan Energy Group)

- 1 Mizushima Oil Refinery, Japan Energy
- 2 Chita Oil Refinery, Japan Energy
- 3 Funakawa Works, Japan Energy
- 4 Sodegaura Lubricants Plant, Japan Energy
- 5 Kawasaki LP-Gas Terminal, Japan Energy
- 6 Kashima Oil Refinery, Kashima Oil Co., Ltd.
- 7 Kashima Works, Kashima Aromatics Co., Ltd.
- 8 Nakajo Oil and Gas Field, Japan Energy Development Co., Ltd.



## Metals (Nippon Mining & Metals Group)

### Metals

- 1 Hitachi Works, Nikko Smelting & Refining Co., Ltd.
- 2 Saganoseki Smelter & Refinery, Nikko Smelting & Refining Co., Ltd.
- 3 Tamano Smelter, Hibi Kyodo Smelting Co., Ltd.
- 4 Kasuga Mines Co., Ltd.
- 5 Japan Copper Casting Co., Ltd.
- 6 Kurobe Nikko Galva Co., Ltd.

### Recycling and Environmental Services

- 1 HMC Works, Nippon Mining & Metals
- 2 Nikko Environmental Services Co., Ltd.
- 3 Tomakomai Chemical Co., Ltd.
- 4 Nikko Mikkaichi Recycle Co., Ltd.
- 5 Nikko Tsuruga Recycle Co., Ltd.

### Electronic Materials

- 1 Isohara Works, Nippon Mining & Metals
- 2 Shiogane Works, Nippon Mining & Metals
- 3 Toda Works, Nippon Mining & Metals
- 4 Takatsuki Plant, Nikko Shoji Co., Ltd.
- 5 Ichinoseki Foil Manufacturing Co., Ltd.

- 6 Kurami Works, Nippon Mining & Metals
- 7 Kurami Works, Kawasaki Plant, Nippon Mining & Metals
- 8 Isohara Plant, Nikko Fuji Electronics Co., Ltd.
- 9 Hitachi Plant, Nikko Fuji Electronics Co., Ltd.
- 10 Kurami Office, Nikko Coil Center Co., Ltd.
- 11 Kawasaki Plant, Nikko Coil Center Co., Ltd.

## Other Operations (Independent Operating and Functional Support Companies)

- 1 Osaka Plant, Tatsuta Electric Wire and Cable Co., Ltd.
- 2 Kyoto Plant, Tatsuta Electric Wire and Cable Co., Ltd.
- 3 Chigasaki Plant, Toho Titanium Co., Ltd.
- 4 Hitachi Plant, Toho Titanium Co., Ltd.
- 5 Yahata Plant, Toho Titanium Co., Ltd.
- 6 Kurobe Plant, Toho Titanium Co., Ltd.



## Petroleum (Japan Energy Group)

- 1 Japan Energy (U.K.) Ltd.
- 2 Abu Dhabi Oil Co., Ltd.
- 3 United Petroleum Development Co., Ltd.
- 4 Japan Energy Corporation Beijing Office
- 5 Shanxi Japan Energy Lubricants Co., Ltd.
- 6 Japan Energy (Shanghai) Trading Co., Ltd.
- 7 Japan Energy (Singapore) Pte. Ltd.
- 8 Southern Highlands Petroleum Co., Ltd.
- 9 Japan Energy Oceania Pty., Ltd.
- 10 Irvine Scientific Sales Co., Ltd.

## Metals (Nippon Mining & Metals Group)

### Metals

- 1 Changzhou Jinyuan Copper Co., Ltd.
- 2 Nikko Metals Trading & Services (Shanghai) Co., Ltd.
- 3 Pan Pacific Copper (Shanghai) Co., Ltd.
- 4 LS-Nikko Copper Inc.
- 5 Nippon Mining & Metals Co., Ltd., Australia Office
- 6 Collahuasi Mine
- 7 Escondida Mine
- 8 Los Pelambres Mine
- 9 Nippon Mining & Metals Co., Ltd., Chile Office
- 10 Pan Pacific Copper Co., Ltd., Chile Office

### Electronic Materials

- 1 Nikko Metals USA, Inc.
- 2 Gould Electronics GmbH
- 3 Nikko Metals Philippines, Inc.
- 4 Nikko Metals Hong Kong Ltd.
- 5 Nikko Metals Singapore Pte. Ltd.
- 6 Nikko Metals Korea Co., Ltd.
- 7 Nikko Metals Suzhou Co., Ltd.
- 8 Nikko Metals Europe GmbH

- 9 Nikko Fuji Electronics Dongguan Co., Ltd.
- 10 Nikko Fuji Precision (Wuxi) Co., Ltd.
- 11 Nippon Mining & Metals (Suzhou) Co., Ltd.
- 12 Nippon Precision Technology (Malaysia) Sdn. Bhd.
- 13 Nikko Metals Shanghai Co., Ltd.
- 14 Materials Service Complex Malaysia Sdn. Bhd.
- 15 Poongsan-Nikko Tin Plating Corp.
- 16 Nikko Metals Taiwan Co., Ltd.

# The Origins of the Nippon Mining Holdings Group's Corporate Social Responsibility



Oshimazakura cherry trees today

## The History of the Nippon Mining Holdings Group

The Nippon Mining Holdings Group traces its history back more than 100 years to December 1905, when Fusanosuke Kuhara purchased the Akasawa Copper Mine in Ibaraki Prefecture and began operating it as the Hitachi Mine. At the beginning of the 20th century, Japan's rapid modernization and industrialization led to a major social problem—air pollution. Sulfurous acid gas from copper smelting operations damaged local crops and forests. In 1914, the Hitachi Mine solved its air pollution problem by building the world's largest smokestack, "The Giant Stack." Further, we have taken steps to restore the natural environment by working with local residents to plant more than 10 million trees, including *Oshimazakura* cherry and black pine. The area has regained its greenery, and every spring the hills are covered in white *Oshimazakura* cherry blossoms. In fact, the cherry blossom has become a symbol of Hitachi.

The Giant Stack became a familiar landmark in Hitachi. However, in 1993 the upper part of the Giant Stack collapsed. After restoration work, it was one-third of its original height. Nevertheless, the Giant Stack symbolizes the history of many years of effort by the Company Group and local residents to coexist by overcoming the air pollution problem and restoring the natural environment. Therefore, we view it as the starting point of our corporate social responsibility activities.

The popular Japanese historical novelist, Jiro Nitta wrote the novel about the Giant Stack '*Aru Machi no Takai Entotsu*' based on the actual story of the efforts of the Hitachi Mine and local residents to work together to solve the problem of air pollution.



Planted *Oshimazakura* cherry trees thriving in the early days of the environmental project

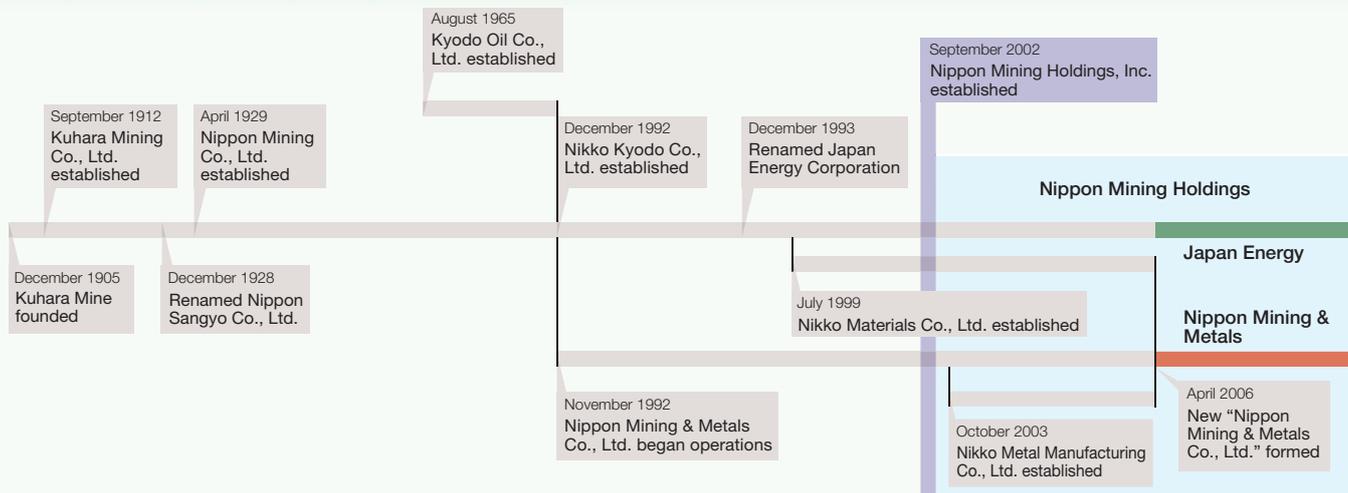


The Giant Stack today



The Giant Stack just before completion

### Changes in the Nippon Mining Holdings Group



# Nippon Mining Holdings Group and Forest Preservation Activities

## Forest Preservation

### Preserving forests in parallel with mining operations

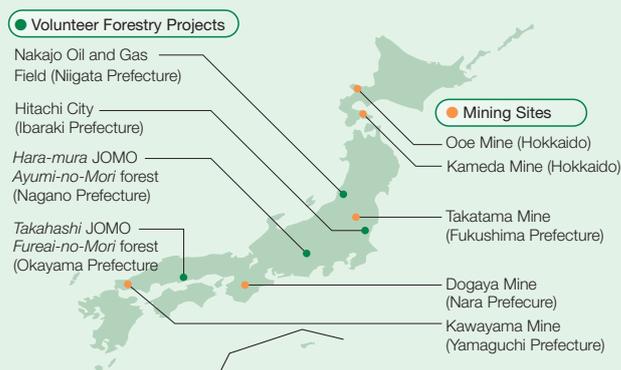
From the time of the founding in 1905 of the Hitachi Mine, the predecessor of the Nippon Mining Holdings Group, the Group has not only helped to assure a stable supply of non-ferrous metal through its mining operations in various parts of Japan, but has also maintained the large tracts of forest it owns in the vicinity of the mines it operates.

The Group has ceased domestic mining operations because its domestic mines have been depleted (except for the Kasuga Mine in Makurazaki City, Kagoshima Prefecture, which produces silicic acid ore, containing gold). The size of the forests held by group companies has decreased, but the Group still maintains approximately 600 hectares of forest land. Regulatory requirements aside, it has been our tradition to foster a harmonious existence with the local community since our earliest days at the Hitachi Mine. Thus, we have a long history of tree-planting programs and other initiatives to restore the eco-systems of natural environments damaged by mining activities.

Moreover, forests play an extremely important role in watershed protection, eco-system maintenance, soil and water conservation,

and the prevention of global warming.

With these considerations in mind, the Nippon Mining Holdings Group has strengthened its forest preservation and maintenance activities at the sites of its former mines. The Group also provides support for forest maintenance through volunteer forest preservation activities and the effective utilization of thinning timber.



Forest maintenance at Takatama Mine

## Environmental preservation measures being implemented at the site of the former Toyoha Mine

The Kuhara Mining Co., Ltd. (predecessor of the Nippon Mining Co., Ltd.) purchased the Toyoha Mine (Sapporo City) in 1914. Primarily one of Japan's leading zinc and lead mines, the Toyoha Mine produced zinc, lead, silver, and indium as well as precious and rare metals, and contributed to Japan's economic development by ensuring a stable supply of these metals. However, it only played this role until March 2006, when operations were discontinued because deposits at the mine had been depleted.

Meanwhile, the various environmental initiatives have continued despite the discontinuation in mining operations. Especially with regard to the acidic wastewater runoff inside the mine shaft or from the waste piles, which contains metal pollutants, permanent water treatment procedures are required to detoxify the wastewater to prevent any deterioration in the water quality of nearby rivers.

We have signed a pollution prevention pact regarding the Toyoha Mine with the municipal government of Sapporo, and wastewater treatment is part of this pact. In order to ensure the purity of the waste wastewater runoff from the waste piles and raise the efficiency of treatment processes, the new Oshidori Wastewater Treatment Plant was constructed and began operating in October 2008. This facility was designed under the guidance of the Hokkaido prefectural government, which is responsible for monitoring industrial activity. In addition, following detailed negotiations with the Sapporo Municipal Government, the company made plans to introduce the latest technologies for ensuring water quality safety. The result is a water processing plant employing cutting-edge technology, representing a rare

move by a private sector company. The main features of the new water treatment plant are as follows.

- 1 All the equipment at the facility is contained in one building, to enable operation even under extremely cold conditions and during heavy snowfall.
- 2 Two lines of water processing equipment have been installed to ensure efficient operation and provide a backup in case of emergency. While only one line is operated under normal conditions, both lines are operated when water volume is at a maximum.
- 3 Regarding the conveyance of water from the waste piles to the treatment plant, the pipes carrying the wastewater rest in a concrete-reinforced trough to prevent the escape of the wastewater in the event that the pipe is ruptured.
- 4 In the event of a power outage or other equipment trouble, the plant is operated using in-house power generation equipment, and is equipped with an emergency water storage tank to prevent the outflow of untreated water in the event of system trouble.

We have been undertaking the dismantling of equipment and facilities of the Toyoha Mine following the discontinuation of operations, and are working to support the regeneration of the natural eco-system while undertaking construction to prevent any damage to the environment. Regarding the waste piles, we are working to grow plants on the cover soil, to achieve harmony with the surrounding natural environment.



Oshidori Water Treatment Plant and water conveyance pipeline



Exterior view of Oshidori Water Treatment Plant



Inside the Oshidori Water Treatment Plant (setting tank)



Former waste pile site, where cover soil has been provided, enabling regeneration



The wildlife at Takatama Mine (Koriyama City, Fukushima Prefecture)

### ■ Forest regeneration activities at the sites of former mines

In forest lands held by the Nippon Mining Holdings Group, we launched a five-year annual tree-planting program at the Kameda Mine (in Hakodate City, Hokkaido) in fiscal 2007. That year, we planted three hectares of land with 7,500 *mizunara* (a kind of oak) and Japanese beech saplings. By the end of fiscal 2008, a total of six hectares had been planted, and this land was also weeded. In fiscal 2009, we are planning to plant another 7,500 saplings. Meanwhile, at the Ooe Mine (in Hokkaido's Yoichi region), we have launched a five-year tree-planting program in fiscal 2008, and planted three hectares with 5,500 pine saplings.

At the Takatama Mine (in Koriyama City, Fukushima Prefecture), in a forest of broad-leaved trees, we undertook timber thinning and the removal of vines. In fiscal 2008, we conducted forest maintenance activities on six hectares, bringing a total of approximately 63 hectares under maintenance. In fiscal 2009, we intend to carry out maintenance on an additional six hectares.

At the Dogaya Mine (in the Yoshino region of Nara Prefecture), we undertook forest thinning for the preservation of Japanese cedar and cypress trees. The steep terrain in these forests necessitates that numerous precautions must be taken during maintenance operations. For this reason, local forestry cooperatives in each area\*1 have been entrusted with the task of undertaking maintenance, as they are well acquainted with the terrain.

Working together with the local governments, we are undertaking forest maintenance at the Kawayama Mine (in Iwakuni City, Yamaguchi Prefecture) under a profit-sharing arrangement\*2.

The forest land held by the Nippon Mining Holdings Group absorbs approximately 9,000 tons of carbon dioxide (in-house estimates) per year.

\*1 Operations have been entrusted to the following forestry cooperatives: Hakodate Wide Area Forestry Cooperative (Kameda Mine); Yotei Forestry Cooperative (Ooe Mine); Koriyama City Forestry Cooperative (Takatama Mine); Totsukawa Forestry Cooperative (Dogaya Mine).

\*2 The Nippon Mining Holdings Group is working on forest preservation as an owner of land designated for afforestation under a profit-sharing arrangement.

### ■ Forest-related volunteer activities

In 2004, Japan Energy launched an annual event in which employees volunteer to engage in forest preservation activities. The first project involved maintenance of the pine forest on the grounds of the Nakajo Oil and Gas Field (Niigata Prefecture,



JOMO Fureai-no-Mori forest (Okayama Prefecture)

Japan Energy Development Co., Ltd.). From fiscal 2005, in the prefectures of Nagano and Okayama, we began offering "forest foster parent" contracts as a means of collecting funds for forest maintenance under our "*Mori no Sato Oya*" (forest foster parent) program. Employees also take part in various volunteer and other forest regeneration activities with members of the local community. In fiscal 2008, employees and their families conducted volunteer activities in forests at these three locations (in Niigata, Nagano and Okayama Prefectures) a total of 7 times, with 580 participants in all.

In addition, in Okayama Prefecture, we have been conducting forest maintenance activities in collaboration with the NPO *Fureai-no-Sato/Takahashi*. Through the activities implemented in fiscal 2008, we were accredited by Okayama prefectural government for achieving an 8.99-ton increase in absorption of carbon dioxide.

### ■ Support for replacement of cherry blossom trees in Hitachi City

In the industrial city of Hitachi, also known for its cherry blossom trees, the *Somei-yoshino* variety of cherry trees that line *Heiwa Dori* are a famous tourist attraction, included among "Japan's 100 best cherry blossom spots."

Currently, Hitachi City is primarily responsible for the long-term care of the trees, as much time has passed since they were planted, and conducts maintenance and replanting activities on an ongoing basis.

The Nippon Mining and Metals Group provides support for Hitachi City's ongoing cherry blossom-related activities. Hitachi Mine has a long history of cooperation with the local community, keeping in mind that the *Oshimazakura* cherry trees were planted by us in cooperation with the local community.



Cherry blossom trees lining Heiwa Dori in Hitachi City

### ■ Using "3.9 paper," made from thinning timber

Many of Japan's forests are experiencing difficulties resulting from a lack of funds and manpower required to undertake forest thinning. Consequently, this thinning timber goes neglected, and is one of the causes of deterioration in the condition of forest resources. Japan Energy engages in forest maintenance activities, contributing to the improvement of this situation. With the aim of supporting the maintenance of local forests, Japan Energy introduced "3.9 paper" ("3.9" sounds like "thank you" in Japanese) made from thinning timber. This project contributes not only to the preservation of natural resources, but also, through the growth of new trees, helps to raise the CO<sub>2</sub> absorption rate and alleviate the problem of global warming.

In March 2009, we received a letter of appreciation (a top honor) from the Japan Wood-Products Information and Research Center for our utilization of domestically produced timber resources. We received this recognition for using "3.9 paper" for all corporate publications, with approximately 100 tons of thinning timber being made into paper pulp.

Details regarding the "3.9 paper" program appear in Japan Energy's CSR Report 2009.

<http://www.j-energy.co.jp/english/csr/>

## Third-Party Opinion



### Ms. Mizue Tsukushi

President and CEO,  
The Good Bankers Co., Ltd.

After studying at the University of Paris and being a full-time housewife, Ms. Mizue Tsukushi joined a French company and then became Deputy General Manager in charge of Institutional Marketing of UBS (Trust and Banking) Limited, of Switzerland. In 1998, she established The Good Bankers Co., Ltd., and in 1999, she created the Nikko Eco-fund as Japan's first financial product based on socially responsible investing. Only investing in companies rated favorably with regard to environmental problems, the fund was the first financial product to win a Good Design Award. Also, Ms. Tsukushi's Family Friendly Fund, developed in 2004, won the Good Design Award and the Work-Life Balance Award. In September 2005, she received the Prime Minister's Award for her contribution to the creation of a gender-equal society. Ms. Tsukushi is a member of the Japanese National Commission for UNESCO and the Central Environmental Council, and fulfills numerous other public roles.

This is the second time I have read and evaluated the Nippon Mining Holdings Group's CSR Report. I was interested to see what progress the Group had made in response to issues raised in the previous fiscal year's report. I have read both reports very closely, carefully comparing them, and I confirmed that on almost all points this year's report shows improvements over the previous year, and achieves an even higher level of information disclosure.

The Group has received third-party accreditation for the environmental performance indicators cited in the previous report, and I commend its efforts to achieve a higher level of reliability for disclosed information.

Firstly, the president affirms his commitment to CSR as a top management priority, declaring: "CSR is integral to our business operations." This clear statement of the importance of CSR is a definite improvement over the previous report.

Next, the Group states as its important themes the realization of a low-carbon society with a strong focus on resources recycling, and the strengthening of the Group's performance in innovation through human resource development.

Measures aimed at the realization of a low carbon footprint include the explanation of business operations by mid-career employees directly engaged in product development, and discussions of their actual work experiences. Through such discussions, the reader can recognize the enthusiasm with which they undertake product development. Especially with regard to the development of components and materials, the results of such efforts are generally not visible to the end-user. When reading the comments by the people responsible for product development, we can readily imagine the ways in which the Group is working to realize a sustainable society through environmental load reductions and other such means.

With regard to the creation of a society with a strong focus on resources recycling, we get a glimpse of the process flow from technology development through commercial applications. The report includes comments from younger employees, mid-career employees and executives. The report clearly communicates the importance of the transference and advancement of technologies for leveraging innovations in the creation of a resources recycling system.

As for the strengthening of its performance in innovation through human resource development, the Group is working together to nurture future executives on a groupwide basis and develop programs for enhancing employees' specialized knowledge and leadership abilities. The Nippon Mining Management College provides customized group training for the Group's executives and managers, as well as new hires, with the ultimate goal of developing professional executives. Looking at the comments from employees who have participated in the training program for engineers working at the Group's core operating companies, we can see examples of how employee motivation has increased. In addition, it seems that there has been an increase over last year in the number of female employees in key positions. By showing this trend over several years, societal changes become easier to understand. The view that effective employment and utilization of women in the workplace attests to the diversity of a company's human resources and leads to enhanced innovation, unfortunately, was not stressed.

The report also indicates the number of occupational accidents in recent years. Including such information, which is detrimental to the company, serves to highlight the reliability of its information disclosure. In response to the accident at the Nikko Smelting and Refining Co., Ltd. in June 2009, emergency safety measures were being implemented to counter oxygen deficiency and other problems. However, given the gravity of that situation, I would have liked to see a citation of the specific factors which caused the problem, as well as concrete measures being implemented to prevent a recurrence. I am also slightly concerned about various violations of regulations and other irregularities that have been reported during the past two years.

Regarding trends in environmental management, in December 2008 Japan Energy participated in a domestic voluntary emissions trading scheme implemented on a trial basis. Afterward, Nikko Smelting and Refining Co., Ltd. also announced plans to participate. It is commendable that these companies are moving quickly to implement measures that address today's most pressing needs.

This year's report also provides a more detailed explanation of the Group's forest preservation activities. In the future, we can expect the Group to set medium- and long-term targets, taking into account the social significance of the preservation of forests, which have a high potential to increase carbon sequestration.

The Group is investigating renewable energy sources such as wind power and hydraulic power, and is working on the development of a system for the mass production of polysilicon for use in solar cells, as well as the development of fuel cell battery systems. However, there is very little discussion of the issue of partially replacing or supplementing fossil fuels with alternative energies, such as biofuels. I think this topic should be more extensively discussed. Some observers believe that all EU member nations will be reliant on biofuels for 10% of fuel used for transportation by 2020. The Nippon Mining Holdings Group has declared its intention to become one of the world's few comprehensive energy, resource, and materials groups through the management integration with Nippon Oil. To achieve this goal, it would be advisable to participate in the competition in R&D in the field of alternative energy that is currently occurring on a global scale, and I would like to see the Nippon Mining Holdings Group take up this challenge.

Regarding the management integration with Nippon Oil, scheduled for April 2010, the key to success will be the fusion of the two respective corporate cultures. It will be interesting to see the kind of corporate culture these two companies create in the future.

Overall, this report shows that Nippon Mining Holdings Group is making steady progress with regard to CSR.

# TRANSLATION

## Independent Assurance Report

September 11, 2009

Mr. Mitsunori Takahagi

President and Chief Executive Officer  
NIPPON MINING HOLDINGS, INC.

### 1. Purpose and Scope of our Assurance Engagement

We have performed certain assurance procedures, based on the engagement with Nippon Mining Holdings, Inc. (the “Company”), on the “Company’s Key Environmental Performance Indicators”. These comprise the “material environmental information” of the Company and its major subsidiaries for the year ended March 31, 2009, as stipulated in the “2009 Sustainability Reporting Assurance and Registration Criteria” of the Japanese Association of Assurance Organizations for Sustainability Information (“J-SUS”) and that were reported in the “Nippon Mining Holdings Group CSR Report 2009” (the “Report”). The assurance procedures are with respect to whether the Key Environmental Performance Indicators have been measured and calculated accurately and whether material information has been fully disclosed in accordance with the reporting standards for sustainability reports<sup>\*1</sup>.

The preparation of the Report is the responsibility of the Company’s management. Our responsibility is to express an independent opinion on the Key Sustainability Performance Indicators.

<sup>\*1</sup> The reporting standards refer to the “2007 Environmental Reporting Guidelines” of the Ministry of the Environment, the “2006 Sustainability Reporting Guidelines” of the Global Reporting Initiative, and the “2009 Sustainability Reporting Assurance and Registration Criteria” of the J-SUS in the context of specifying the material subject matter to be disclosed.

### 2. Outline of the Assurance Procedures Performed

We have performed limited assurance procedures<sup>\*2</sup> in accordance with the “2003 International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagement other than Audits or Reviews of Historical Financial Information” of the International Federation of Accountants (IFAC) and the “2008 Practical Guidelines for the Assurance of Sustainability Information” of the J-SUS. Therefore, our assurance engagement provides relatively limited assurance compared to a reasonable assurance engagement.

<sup>\*2</sup> We have mainly reviewed and assessed the Company’s procedures for the collection and aggregation of data, performed analytical procedures, as well as recalculated and reconciled them with the corroborating evidence on the quantitative sustainability information on a test basis. In addition, we have mainly made inquiries and reviewed the minutes on the qualitative sustainability information.

### 3. Conclusion

Based on the assurance procedures performed, nothing has come to our attention that causes us to believe that the Key Environmental Performance Indicators have not been measured and calculated accurately in accordance with the reporting standards of sustainability reports, or material information has not been disclosed in accordance with the “2009 Sustainability Reporting Assurance and Registration Criteria”, in all material respects.

### 4. Independency

We, as a subsidiary of Ernst & Young ShinNihon LLC, comply with the “Certified Public Accountants Law”, and the “Ethics Regulations” of the Japanese Institute of Certified Public Accountants. Therefore, there has been no interest to be noted between the Company and us.

Akihiro Nakagome  
Representative Director  
Ernst & Young ShinNihon Sustainability Institute Co., Ltd.

Note: This Independent Assurance Report has been prepared as a translation of the original Japanese version.



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Tokyo, Japan, 105-0001  
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## Inquiries

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In September 2009, the Company's stock was once again selected for the calculation of the leading SRI (socially responsible investment) index of the Dow Jones Sustainability Asia Pacific Index (DJSI Asia Pacific) and the Morningstar Socially Responsible Investment Index (MS-SRI).



DJSI Asia Pacific: A global index of 130 companies selected for their sustainable growth potential from among the 600 largest companies in the Asia-Pacific region.



MS-SRI: This index comprises 150 stocks selected from among 3,600 listed companies in Japan on the basis of noteworthy social responsibility efforts. This is Japan's first socially responsible investment index.

The indicators of environmental performance contained in this report that have been reviewed by a third party have received the mark appearing below, which shows that these indicators have met the association's reliability criteria.



The J-SUS mark indicates that the reliability of the environmental information contained in the Nippon Mining Holdings Group CSR Report 2009 meets the standards for environmental report screening and logo use defined by the Japanese Association of Assurance Organizations for Sustainability Information (J-SUS).