

Metals Company Supplementary Data Book



For People, Society and the Earth



Introduction

The Mitsubishi Materials Group publishes its Corporate Social Responsibility (CSR) report to provide stakeholders with information regarding its perspective on and activities in the area of CSR.

Metals Company, one of the in-house operating companies of Mitsubishi Materials, is a member of the ICMM^{†1} (related article: p.6), which has as one of its objectives promoting sustainable development in the mining and metals industry. In order to ensure accountability about our mining and metal sector operations, we aim to appropriately disclose and promote transparency in the information we provide. As part of our effort to meet this objective, we publish this Supplementary Data Book to provide additional information regarding our CSR activities to that contained in the Mitsubishi Materials “CSR Report 2011”.

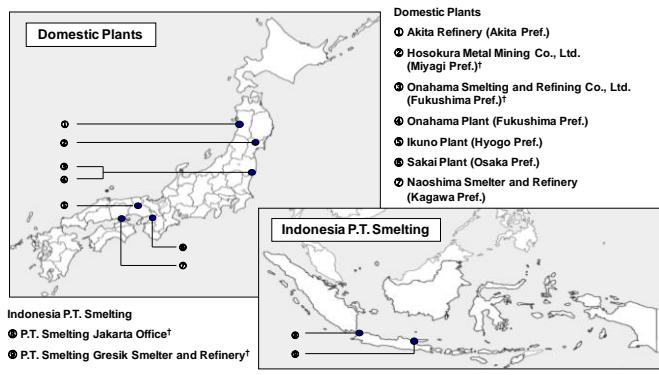
Please also refer to the Mitsubishi Materials “CSR Report 2011”, as information regarding Metals Company is also included in the Report.

^{†1} ICMM: International Council on Mining and Metals is an organization formed by the world's leading mining and metals companies, which has a clear commitment to leading sustainable development in the mining and metals sector.

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Mitsubishi Materials' Metals Company and its three affiliated smelting companies (Onahama Smelting and Refining Co., Ltd. (Onahama Smelter), Hosokura Metal Mining Co., Ltd (Hosokura Smelter), Indonesia P.T. Smelting (P.T. Smelting))	Striving to preserve the environment and combat global warming	P. 8
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Plant locations of Metals Company and affiliated smelting companies



This Data Book, along with the information covered in the Mitsubishi Materials "CSR Report 2011", has been independently assured by KPMG AZSA Sustainability Co., Ltd., with all figures subject to external independent assurance marked with a star ★. For more details regarding external independent assurance, please refer to p. 75 in the Mitsubishi Materials "CSR Report 2011".

Message from Company President

The Linkage Between Business, People, Society and the Earth

At Metals Company a key component of our growth strategy is strengthening the integrated value chain throughout our mine development, smelting and processing operations.

In mine development, we are continuing our strategy of increasing ore sourced from mines in which we have invested by implementing new exploration and development projects, for example at Copper Mountain Mine in Canada. Although we are not directly involved in the management of copper mines, to ensure the mines from which we source ore are managed to minimize impacts on the environment and local communities, we established our CSR Procurement Standards and CSR Investment Standards in fiscal 2010. We assess compliance of the mines where we invest in and our ore suppliers against the standards.

Our smelting operations continue to focus on operational efficiency and expansion of the recycling business. Two of our domestic and four overseas production plants have already implemented the Mitsubishi Process, our proprietary smelting process characterized by its high efficiency, low energy consumption and pollution-freeness. We continue to integrate environmental and safety management into all aspects of our business and are actively implementing measures to meet our target of an annual 1% reduction in energy consumption per unit production.

In April 2010, we completed the acquisition of Mitsubishi Sindoh Co., Ltd. and Mitsubishi Cable Industries as part of our growth strategy for downstream markets. In addition, we are further developing downstream operations through our Indonesia based P.T. Smelting business. Closer integration of our smelting and processing value chains creates opportunities for operational and resource use efficiency as well as energy saving, key components of sustainable operations.

Metals Company believes it essential to incorporate sustainable development into our business management and operational activities, considering protecting the environment for future generations and conserving limited resources.

Activities as an ICMM member company

The ICMM, as an international council of mining and metals industry, aims for industry-wide performance improvement through various activities including environmental conservation, human rights, safety and health, employment

issues, local society and cultural preservation for sustainable mining development. Metals Company has been a member of the organization since 2002.

Although Metals Company is not directly involved in the management and development of mines, we support the "10 Principles for Sustainable Development" advocated by the ICMM and are working to minimize our environmental and social impacts in the global supply chain. As an ICMM member company, we will proactively disclose information regarding our activities in this area.

Conservation of Biodiversity and Natural Resources

A key focus of our CSR activities has been ecosystem preservation. An example of our activities in this area (details are mentioned in the later section) is the restoration initiative at Naoshima Smelter & Refinery (Naoshima Smelter, Kagawa Prefecture) where we are working together with the local community to conserve biodiversity damaged by a mountain fire several years ago. Biodiversity conservation supports protection of the ecosystem services (fresh water and regulation of the climate, etc.) essential to our operations. We also actively promote the materials recycling business and continue to achieve the highest annual recycling volumes of automotive shredder residue in Japan. Metals Company is committed to continue its environmental preservation and resource conservation activities.

Through this Data Book, we hope our stakeholders gain a better understanding of Metals Company's CSR activities.



Toshinori Kato
Executive Vice President
President, Metals Company
Mitsubishi Materials Corporation

加藤敏則

(Profile)

- 2003.6 General Manager of Metals Company
- 2004.6 Executive Officer / Vice President of Metals Company
- 2006.4 Senior Executive Officer / President of Metals Company
- 2008.6 Managing Director / President of Metals Company
- 2011.6 Executive Vice President / President of Metals Company (current)

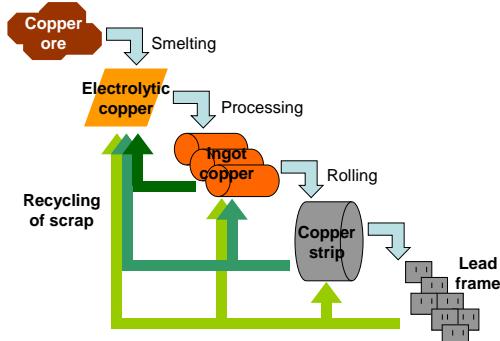
Business Outline of Metals Company

With high electrical and thermal conductivity, good workability, high-strength properties, and relatively low-cost, copper is used in a wide range of applications and is essential to our daily life. These include electric cabling, copper tubing, electrical components, automobile components and construction materials. Copper is an indispensable material that is widely used in consumer products including automobiles, mobile phones, personal computers, and air conditioners. Recently, it has become an important component in hybrid and electric vehicles. Through our mass production technology for oxygen-free copper and copper alloys, with their high levels of electric conductivity, we have become the world's leading manufacturer of oxygen-free copper in terms of market share.

Comprehensive Capabilities from Mining Development Investment to Copper Processing

The metals business of Mitsubishi Materials has a long history of business transformation following the start of operation of Yoshioka Mines in Okayama Pref. in 1873. We have established a vertical value chain structure within our group companies that covers securing ore, smelting and copper-processing. As approximately 75% of electrolytic copper can be processed to nearly finished product through our downstream value chains, our vertical value chain structure combines efficient production whilst improving efficiency in material flow along the supply chain and in scrap processing. This contributes to higher total yield ratios and results in effective utilization and conservation of material resources.

- Vertical Value Chain from copper smelting to processing



In April 2010, Metals Company acquired 100% ownership of Mitsubishi Cable Industries which, together with the acquisition of Mitsubishi Shindoh Co., Ltd., results in the incorporation of copper rolling and wire businesses into the Company. The acquisitions allow Metals Company to access to copper rolling and wire unique technologies

and opportunities for operational synergies from integration of business processes.

Promotion of Recycling Business

In recent years, Metals Company has made significant efforts towards developing its recycling business to promote the sustainable use of resources. We recover valuable metals (copper, etc.) from shredder residues generated from end-of-life vehicles and electronic home appliances. In addition, we use the combustible fraction of shredder residue as fuel in our furnaces and recover waste heat generated for power generation contributing to reductions in our CO₂ emissions. In Fiscal 2010, we participated in a demonstration project on mobile phone recycling and worked on the potential for recycling compact household appliances, a project which is on-going. In addition, we have developed and commercialized technologies for the recovery of tin, lead, and indium from scrap materials. From July, 2011, we have started recovery of ruthenium to strive for recovery of rare elements.

Procurement of Raw Materials and Investment in Overseas Copper Mines

Currently, Metals Company participates in four mine operation and development projects; Los Pelambres Mine (Chile), La Escondida Mine (Chile), Batu Hijau Mine (Indonesia), and Huckleberry Mine (Canada). At La Escondida Copper Mine, we secured an additional interest in the mine in May 2010. Mine development processes generally incorporate 1) site selection, 2) exploration, 3) feasibility study, 4) facility construction, and 5) operation stages. Historically we joined new projects from the feasibility study stage, but under our current strategy we are proactively promoting participation from the exploration stage. We have been participating in the exploration of copper and gold deposits at Namosi, Fiji, jointly with Nittetsu Mining Co., Ltd since 2004, and participating in the successful re-development of the Copper Mountain Mine in Canada, which saw the resumption of operations in August 2011 following a shut down of operations in 1996.



Panoramic view of Naoshima Smelter

Metals Company and CSR

Material Issues

Mitsubishi Materials has reappraised the key material issues that we consider necessary to address in the future ("material issues"; factors that have the potential to have a significant impact on our corporate value) on a companywide basis. Nine material issues as shown below were identified. In this process, we took into consideration issues impacting the sustainability of society as a whole and the perspectives of our stakeholders. For the details and actions associated with these issues, please refer to "the 2011 CSR Report".

Mitsubishi Materials Nine Material Issues

- ① Promoting internal control
- ② Securing resources to guarantee the steady supply of products
- ③ Contributing to a recycling-oriented society through recycling initiatives
- ④ Striving to preserve the environment and combat global warming
- ⑤ Promoting environmental technology and products
- ⑥ Training and harnessing a diverse range of human resources
- ⑦ Creating safe and healthy working environments
- ⑧ Increasing social and environmental awareness throughout the supply chain
- ⑨ Promoting communication with stakeholders

Metals Company's business characteristics and material issues

Securing a stable supply of raw materials is critical for our business operations. At the same time, we recognize a need to make procurement and investment decisions in an environmentally and socially responsible manner. We also consider it essential to obtain materials, not only by purchases of ore from mines, but also from recycled materials in order to preserve natural resources. Metals Company undertook action plans in fiscal 2011 in the following areas.



Recycle Plant in Naoshima Smelter

Metals Company: Fiscal 2011 results and Future tasks

② Securing resources to guarantee the steady supply of products

[Target] Increase the ratio of "self-sourced" ore by investing in mines

[Fiscal 2011 results] Additional acquisition of interests in La Escondida Mine in Chile, promotion of joint exploration projects and participation in the re-development of Copper Mountain Mine in Canada.

[Future tasks] Re-opening of Copper Mountain Mine in Canada, continued promotion of exploration and selection of development projects.

③ Contributing to a recycling-oriented society through recycling initiatives

[Target] Expansion of the recycling business

[Fiscal 2011 results] Increase in volume of recovered waste circuit boards and treatment capacity in response to higher volumes of materials from the 2011 Eco-points system for home electronics appliances program and completion of the transition to digital terrestrial transmission.

[Future tasks] Enhance collection and recovery of recycled raw materials from both domestic and international sources, increase capacity of treatment facilities.

⑧ Increasing social and environmental awareness throughout the supply chain

[Target] Achieve the targets set as an ICMM member

[Fiscal 2011 results] Operation of CSR standards for procurement and investment.

[Future tasks] Support compliance with emerging chemical regulatory controls.

In this Data Book, we will provide information relating to the followings out of the 9 material issues, which we consider especially important to Metals Company.

Material Issues	Page
④ Striving to preserve the environment and combat global warming The environmental impact of our operations and steps to reduce our impact.	8
⑥ Training and harnessing a diverse range of human resources Global human resources management in Metals Company.	12
⑦ Creating safe and healthy working environments Actions to create a safe and healthy working environment taking into account the nature of our operations.	13
⑧ Increasing social and environmental awareness throughout the supply chain Environmental and social actions in copper ore procurement.	14

As an ICMM Member

As a member of the ICMM (International Council on Mining and Metals) we promote CSR initiatives within our operations. The ICMM is a global consultative body comprising of major global mining/smelting companies with a key objective of working to improve the environment, health and safety, and human rights performance in the mining and metals industry. The ICMM advocates 10 Principles for Sustainable Development, to which member companies are required to commit.

ICMM 10 Principles for Sustainable Development

01. Implement and maintain ethical business practices and sound systems of corporate governance.
02. Integrate sustainable development considerations within the corporate decision-making process.
03. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
04. Implement risk management strategies based on valid data and sound science.
05. Seek continual improvement of our health and safety performance.
06. Seek continual improvement of our environmental performance.
07. Contribute to conservation of biodiversity and integrated approaches to land use planning.
08. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
09. Contribute to the social, economic and institutional development of the communities in which we operate.
10. Implement effective transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

In April 2011, reflecting changes in social awareness associated with our operations and to reflect the ICMM 10 Principles, we revised our Code of Conduct as Mitsubishi Materials as a whole, and added the following items:

Additions to Specific Details under the 10 Articles of Our Code of Conduct

- Taking into consideration the sustainable development of society
- Working to create a low-carbon society
- Taking into consideration biodiversity
- Implementing and maintaining sound corporate governance
- Prohibiting child labor and forced labor
- Striving to achieve a work-life balance
- Continually improving occupational health and safety performance
- Ensuring that products are designed, used, reused, recycled and disposed of responsibly

Moreover, ICMM defines the position statements for supplementing and embodying some of the ten essential principles.

ICMM Position Statements

1. Transparency of Mineral Revenues
 - Declare support for the Extractive Industries Transparency Initiative (EITI)
2. Policy on climate change
 - Work on the reduction of green house gas emissions
3. Mercury Risk Management
 - Implement appropriate management of mercury
4. Mineral Resources and Economic Development
 - Contribute to economic development and poverty reduction in resource-rich countries
5. Mining and Protected Areas
 - Undertake not to explore or mine in World Heritage properties
6. Mining and Indigenous Peoples issues
 - Respect indigenous peoples and their rights
7. Mining: Partnerships for Development
 - Enhance mining's social and economic contribution

Mitsubishi Materials Company has for several years implemented measures supporting the ICMM position statements. Examples of our proactive approach include establishing a company wide initiative in November 2008 regarding our

greenhouse gas emissions (Statement 2) and implementation of programs for mercury management (Statement 3). Although we are not directly involved in the day-to-day operations of mines through our management systems and initiatives, as for example our CSR standards, we monitor the environmental and social compliance of mines in which we invest (Statement 4 -7). In addition, as a member of ICMM we actively support the Extractive Industries Transparency Initiative (EITI) as described below (Statement 1).

Support for the Extractive Industries Transparency Initiative (EITI)

The Extractive Industries Transparency Initiative (EITI) increases transparency over payments by companies to host country governments. EITI also supports poverty reduction and promotes the creation of a sustainable society. Governance of EITI is shared equally between representatives of government, extractive industries and civil society. ICMM has supported the goals of EITI since its establishment in 2005. As a member company of ICMM and shareholder in the Indonesia based P.T. Smelting, the Metals Company supports the objectives of EITI as an extractive company in responsible resources development and promoting growth and poverty reduction.

Responsibility of ICMM member companies

As a member of the ICMM, we are committed to undertake the following actions;

- ① Conduct our business in accordance with the 10 ICMM Principles,
- ② Develop our 'CSR Report' compliant with the GRI guideline,
- ③ Obtain third-party assurance on the CSR Report by 2010.

Regarding the ICMM Principles, the Metals Company incorporates these within its operations as previously stated. Our 2010 CSR Report in conjunction with the Metals Company Supplementary Data Book, were compiled in accordance with GRI guidelines and both successfully received third-party assurance, an approach we intend to continue.

ICMM activities

One of the objectives of ICMM is to act as a leader to promote the sustainable growth of the Metals & Mining

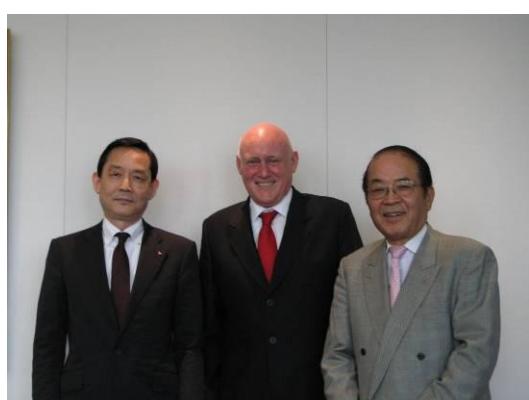
sector. Currently, ICMM has approximately eighty active projects with climate change and Chemical substances as priority action areas.

The President of ICMM visited Metals Company in December, 2010, where he held discussions, mainly centered around climate change, with Hiroshi Yao, (President), and Toshinori Kato (Current Executive Vice President). ICMM is working to develop a basic strategy and action plan as well as taking an active role in international discussions in this area.

At Metals Company, we have undertaken active initiatives in the area of chemical substance management in various ways such as participating in major international forums. As an example, in September, 2010, we held a work shop in Tokyo, together with ICMM staff, Japanese ICMM member companies and the Japan Mining Industry Association, to promote a dialogue between the appropriate Government agencies and industry. The major content of the discussion with the related ministries is as follows;

- Ministry of Economy, Trade and Industry: Initiatives in the area of chemicals management in Japan
- Ministry of the Environment: Initiatives and trends in Mercury and the related issues, PRTRs and SAICM.
- Ministry of Health, Labor and Welfare: Chemical exposure and risk evaluation

Metals Company considers that communication with stakeholders in association with ICMM is an important part of our CSR activity.



Our president and executive vice president met with ICMM President, Dr. R. Anthony (Tony) Hodge (December, 2010)

Striving to preserve the environment and combat global warming

Environmental Management

Metals Company and Environment

Metals company's operations include nonferrous smelting and copper processing which generate emissions that have a negative impact on the environment. To reduce our impact, we are taking measures including continuing to operate in compliance with environmental regulations, promotion of a more socially and environmentally concerned procurement process for raw materials, implementation of energy saving programs, recycling activities and measures for biodiversity preservation.

■ Energy and Material Balance

Input	Output
Raw materials	Products
Energy	Air Emissions
Water	Wastewater Wastes

Environment Regulatory Compliance

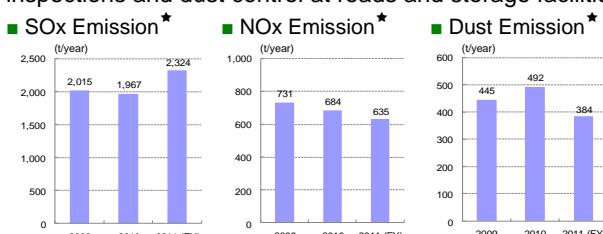
Metals Company's sites in Japan have obtained ISO14001 certification to support environmental management and compliance with the exception of Onahama Plant which has already established an environmental management system and is preparing to obtain certification. P.T. Smelting has established an environmental management department working to ensure environmental compliance with local regulations, with actions including holding monthly environmental committee meetings and performing environmental monitoring in three shifts. As a result, Metals Company received no administrative measures, for example fines for environmental violations, operational stop orders or revocation of environmental permits in fiscal 2011.

Environmental Accidents

Respect of the environment and safety is considered as a key component in all our mid-term management and our basis for all management strategy. In fiscal 2011, no environmental incidents, for example chemical releases, occurred in Metals Company.

Emission into the Air

The generation of SO_x and NO_x atmospheric emissions is an un-avoidable result of fossil fuel combustion. To minimize atmospheric emissions, each site implements programs such as air emission concentration monitoring (SO_x, dust, etc from exhaust systems), regular equipment inspections and dust control at roads and storage facilities.

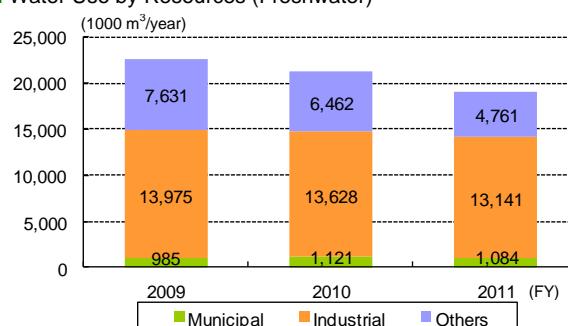


* The fiscal 2009 and 2010 data have been restated as a result of a change in the calculation method at the Sakai Plant.

Effective Utilization of Water Resources

At sites performing smelting and copper processing operations, water is used for many purposes including cooling, production, and drinking. Total water consumption in fiscal 2011 was 303 million m³[†] of which more than 90% (284 million m³) was sourced from seawater. We promote the installation of closed systems at our wastewater treatment plants, and water re-use.

■ Water Use by Resources (Freshwater)*



■ Amount of Wastewater (1000 m³)*

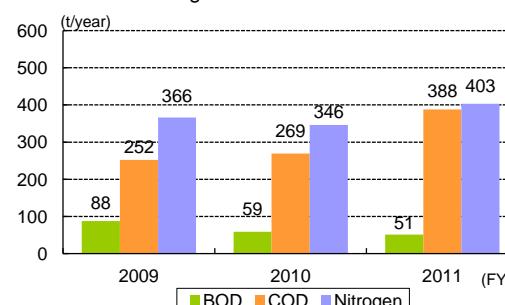
	Fiscal 2011
River/Lake	12,518
Sewage	100
Others	13
Marine	294,611
Total	307,242

[†] The reason why wastewater amount is greater than water consumption amount is due to the treatment of wastewater from springs (ground water) from closed mines.

Discharged Water Quality Control

Process wastewater from each site is discharged following on-site treatment. Each site has established its own internal emission standards that are more stringent than legal requirements and strictly control the concentrations of pollutants in discharged water. Sites are also working to protect the water environment through measures to reduce the usage of substances that cause pollution and strict management and inspection of wastewater treatment plants.

■ Pollutant Load discharged to Bodies of Water*



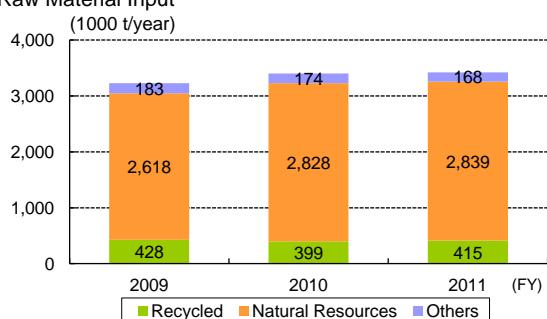
Promotion of a Recycling-Oriented Society

Use of Recycled Material

Direct and indirect material consumption in fiscal 2011 was 3,422 thousand tons, of which approximately 415 thousand tons (approximately 12.1%) came from recycled materials, such as a shredder residue and waste substrates, etc, and approximately 250 thousand tons of the recycled materials came from industrial wastes that would otherwise have gone to landfill.

Metals Company's operations consume a large amount of natural resources including ore. As part of our resource conservation activities, we are reducing the use of virgin raw materials, and promoting the use of secondary raw materials including scrap of various kinds. Because there are various sources of scraps, we are promoting measures for scrap collection as well as processing.

■ Raw Material Input*



[†] The performance of prior fiscal years has been reviewed and the figures have been corrected.



Shredder Residue



Waste substrates

Reduction of Waste Generation

The total amount of waste generated was 3,019 t in fiscal 2011. Approximately 32 % of this was demolition waste generated from the dismantling of facilities, followed by waste acid and alkali at approximately 17%, and waste oil and plastics respectively accounting for approximately 13% and 12%.

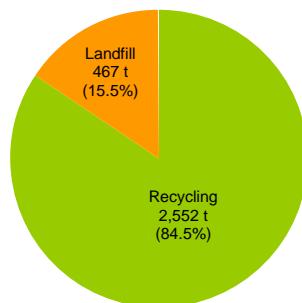
■ Waste Generation by Types of Industrial Wastes Generated (t)*

	Fiscal 2011
Sludge	176
Waste Oil	405
Waste Acid/ Waste Alkali	522
Waste Plastics	354
Wood Wastes	252
Scrap Metal	3
Glass/ Concrete/ Pottery Wastes	164
Demolition Wastes	952
Special Management Industrial Wastes	190
Total	3,019

[†] The wastes generated at P.T. Smelting are not included in the figures above, since the amount of wastes are calculated based on industrial waste manifests.

We confirmed from reviews of industrial waste manifests that approximately 85% of the total waste generated in fiscal 2011 (3,019 t) was recycled by external waste treatment contractors. Scrap materials generated from our own production processes are reused on-site whenever possible. Scrap materials which cannot be reused are where possible treated at the Mitsubishi Material Group companies or transported to other smelting companies for recycling as necessary. In this way, we try to maximize collection of scrap materials by utilizing the network of companies that possess processes to recover substances from scrap. In cases where it is not possible to recycle scrap materials, materials will be transported to external contractors for landfill. Through this approach, we reduce the amount of industrial wastes going to landfill.

■ Breakdown of Industrial Wastes by Disposal Method (fiscal 2011)*

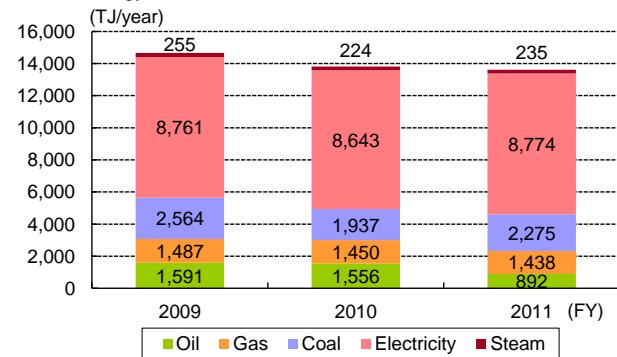


Combat Global Warming

Promoting Energy Saving

In our smelting and copper processing operations, oil, gas and coal are used as primary energy sources, with electricity and steam used as secondary energy sources. Total energy consumption in fiscal 2011 was 13,614 terajoules, slightly reduced from 13,810 terajoules of the previous year.

■ Total Energy Use*



* The energy consumption is converted in Joules using coefficients specified in the Energy Saving Act.

Metals Company has set itself the target of achieving the “annual reduction of 1% in energy per unit” through the implementation of energy saving programs. In fiscal 2011, we reduced energy use by approximately 15,271 kiloliters of crude oil equivalent, which amounts to JPY351 million. The breakdown of the reduction is summarized below.

■ Energy Saving Results of fiscal 2011

		Effect	
		Amount of Money (Million Yen)	Crude oil Equivalent (kl)
Fuel switching and utilization of unused energy	Onahama Smelter	239.4	12,245
Improvement of existing facilities/equipments or installation of efficient ones	Naoshima Smelter	20.8	601
	Sakai Plant	0.5	12
	Onahama Plant	4.8	96
	Onahama Smelter	19.5	597
	Hosokura Smelter	0.6	3
Operation review and management reinforcement	Akita Refinery	0.5	13
	Sakai Plant	0.1	1
	Onahama Smelter	64.4	1,680
Changing appropriate capacity of power etc.	Onahama Smelter	0.8	24
Metals Company Total		351.3	15,271

* Excluding P.T. Smelting

Key examples in energy saving are summarized as below;

- 1) Fuel switching and utilization of unused energy sources (Onahama Smelter)
- 2) Improvement of existing facilities/equipments or installation of efficient ones (Onahama Smelter, Naoshima Smelter)
- 3) Operation review and management reinforcement (Onahama Smelter)

Energy Saving at Logistics

In fiscal 2011 total energy use in logistics was approximately 175 terajoules*. Transportation includes ship, truck, and rail, with ships accounting for approximately 122 terajoules or approximately 70% of total logistics energy use. The greenhouse gas (GHG) emission from our logistics was 12,193 tons-CO₂*

According to statistical data, energy consumption and CO₂ emissions per ton-kilometer (t-km) of ships are fourth of those of trucks. The modal shift, a change from truck transport to other forms of transport, is one of the major energy saving measures we have implemented. However, the level of energy saving that can be achieved from the modal shift is reaching its limit. Therefore, our future efforts in this area will be focused on energy savings from ship based transport e.g. managing ship speed to improve unit energy consumption (energy consumption per t-km).

Reducing GHG Emission

The fiscal 2011 GHG emissions of Metals Company were 1.15 million tons-CO₂ eq, and decreased by about 60 thousand tons as compared with the previous fiscal year. Approximately 70 % of which was emitted through energy use with the remainder coming from waste processing and industrial processes.

■ Breakdown of GHG emission (t-CO₂ eq)* †^{1,2}

GHG		Fiscal 2011 Emissions
CO ₂	Energy Use	837,615
	Non Energy Use	19
	Wastes	312,104
Other GHG ^{†³}		2,538
Total		1,152,276

^{†¹} Excluding emission from logistics.

^{†²} The emissions were calculated in accordance with the “Manual for Calculating and Reporting Greenhouse Gas Emissions” (version 3)

^{†³} HFCs, PFCs, SF₆, CH₄, N₂O

As the main source of GHG emission is energy use, Metals Company is working on energy saving activities to reduce GHG emissions. For example, the Onahama

Smelter recycles automotive shredder residue (ASR) generated from end-of-life vehicles and used home appliances. The smelter initially treated SD by mixing it with ore in the existing reverberatory furnaces. In December 2008, as a part of implementing the Mitsubishi Process an S-Furnace was installed upstream of the reverberatory furnaces. This is used primarily for processing ore with the reverberatory furnaces treating SD.

The pulverized coal burner used at the reverberatory furnace, although suitable for ore processing, was not suitable for SD treatment as it required the use of heavy oil in combustion. To overcome this, the burner was changed from direct combustion to indirect combustion resulting in improvements in pulverized coal burner operations. Following a trial period of experimental operation from October 2009, the unit was brought into full operation from December 2009.

Preservation of biodiversity

Preservation and recovery of biodiversity

Efforts at Hosokura mine

At Hosokura mine, the mining and smelting of lead and zinc has been conducted since the early 9th century. Following its mine closure in 1987, Hosokura Metal Mining Co., Ltd, one of our affiliated companies in Kurihara City, Miyagi Prefecture has been working on assessing the natural environment damage caused by the historical mining activities and measures for its recovery. Hosokura Metal Mining has been conducting extensive tree-planting projects in the areas surrounding the mine to promote recovery of the natural ecosystem, and holding the "Hosokura tree-planting ceremony for millennium woods" since 2006 as advised by Dr Akira Miyawaki, a professor emeritus of Yokohama National University. Methods using both dense planting and companion planting are selected for this event. We plant between 3,000 – 5,000 seedlings of 31 endemic species in Hosokura area, including *quercus serrata*, *quercus crispula*, *quercus myrsinaefolia*, etc. covering an area of over 1,000 m² every year since 2006.



The third planting Ceremony
(Photo of June 7th, 2008)

3 years after
(Photo of September 26th, 2011)

Efforts at Naoshima Smelter

Since natural reserves play a substantial role in biodiversity preservation, production sites nearby national parks are considered to play a key role in terms of biodiversity preservation. In Metals Company, only Naoshima Smelter (a plant area of 1,810 thousand m²) is located adjacent to a national park (Seto Inland Sea National Park). We have established environmental control targets for biodiversity preservation including developing and implementing annual afforestation plans. Afforestation activities started around 1950 which were initially intended for sediment control. However, as part of the rehabilitation process following a fire several years ago, we are promoting the preservation and recovery of the original ecosystem through recovery of onsite vegetation for example by planting endemic hardwoods. To minimize ecological impacts by emissions from our operations, we obtained ISO 14001 certification and implement a thorough environmental management program.



Effective use of biomass energy

Naoshima Smelter promotes afforestation activities and has been commissioned by Kagawa Prefecture to conduct a biomass energy project as a part of the "Eco Island Naoshima Plan". In this project, we grow sunflowers at fallow rice fields in the Tsumuura District, and extract cooking oil from those seeds. This is used by residents in the district and recycled into Bio Diesel Fuel for farm machines or soap. In addition, we created biotopes and planted cosmos to enhance the environment and landscape in the surrounding area. We promote these activities in conjunction with local communities.



Sunflowers cultivated in fallow fields. Food oil is extracted from the sunflower seeds and waste oil is used for fuel, etc.
2007.07.22

Training and harnessing a diverse range of human resources

Human Resources of Metals Company

We are engaged in measures to improve the value of our people, as we recognize that people are important management resources. This policy is declared in the Mitsubishi Material Group Policy. We are also promoting diversity in the workplace in response to the low birth rate and aging society in Japan.

- Breakdown of numbers of employees at HQs and production sites of Metals Company* (number of people)

(As of March 31, 2011)

Classification	Male	Female	Total
Management	110	0	110
Full-Time Employees	427	26	453
Temporary Staff	108	31	139
Total	645	57	702

* Only Metals Company's HQs and production sites directly managed by Metals Company

- Employee Turnover (number of people)*

Number of Turnover		
Male	Female	Total
41	0	41

* Only Metals Company's HQs and production sites directly managed by Metals Company

Respect of Human Rights

We respect the basic human rights of all people, work to eliminate discrimination and contribute to the creation of a free, equal, and fair society.

P.T. Smelting in Indonesia is working to prevent child and forced labor, which are sometimes encountered in the developing countries. The company hires employees from candidates who directly apply to the company and confirm ages of applicants by formal IDs or diplomas to ensure that the applicants are above the minimum legal working age in Indonesia.

Overseas Human Resource Development

P.T. Smelting understands that localization is a key component for sustainable development and proactively recruits local people. In September 2011, 483* out of 499 total employees, i.e. 97%* of the workforce, were local employees. In addition, the company appoints local people to management positions to motivate employees and promote clear communication of management policies among employees. In September 2011, 26* out of 42

management people above assistant manager level i.e. 62%* were locally hired.

P.T. Smelting is also implementing skills development activities; developing annual training plans and providing training in accordance with the plans. Key development areas for employees include corporate wide programs such as quality management, management strategy, finance and safety, as well as operation-related training such as environment / quality management and equipment maintenance, etc. Training programs are established so that employees can take training that corresponds to their job function. We also have various welfare packages including work injury insurance, health benefits, home benefits, and emergency loans, etc for our employees.



Photos of training for local employees in P.T. Smelting

In Indonesia, where P.T. Smelting is located, there is a greater risk of restrictions on freedom of association for workers or conducting collective negotiations compared to Japan. Therefore additional measures are required to ensure the protection of workers' rights. In P.T. Smelting, a labor union has been established in accordance with local regulations. Monthly meetings, in which the company's management such as managers and above and representatives of the labor union participate, are held to report on operational status and exchange opinions. Additionally, negotiations to revise work agreements are conducted every two years. The Human Resource Division and executive team of the labor union hold discussions about the revision through the year. In fiscal 2011, there were no strikes or shutdown at the plant.

Creating safe and healthy working environments

Occupational Health and Safety

Development of Health and Safety Management Systems

We are driving health and safety (HS) activities based on the policies addressing prevention of the occupational accidents and provision of a safe and healthy work environment, and making best efforts regarding the healthcare of our employees. The program to implement Occupational Safety and Health Management Systems (OSHMS) at all production sites of Metals Company was completed in March 2010 and the decision whether to obtain external certification or not, is delegated to each site, to be decided depending on their respective size and nature of operations. Naoshima Smelter obtained JISHA OSHMS certification in 2008 which was the first plant to obtain certification among the company.

HS Promotion Activities

Each production site of Metals Company implements safety management applicable to the site-specific safety risk and in line with the Corporate Safety and Health Management Policy. We believe that HS activities should be promoted in cooperation with the labor union and therefore hold a labor union and company management meeting once per year.

Additionally, we participate in the Safety Committee of the Japan Mining Industry Association and share information on our occupational health and safety performance with our peers in the sector. The safety statistics report of the Metal mining industry is compiled by the association once a year in cooperation with the member companies. The report is helpful to understand the safety level of our company among of the industry. P.T. Smelting in Indonesia established its OSH department in January, 2010, and has assigned five managers as safety officers responsible for health and safety management and implementation of programs to prevent industrial accidents. The safety officers are responsible for hazard and risk identification, and implementation of mitigation measures to prevent accidents. As an example of the success of this initiative, we have seen a significant reduction in the incidence of accidents during furnace repair work involving temporary workers, as a result of providing comprehensive safety training and twice daily safety patrols of the work area.

Regarding employee education, Naoshima Smelter has installed an imitative-risk-experience facility for training purposes, with training provided to all employees and contractors working at the site. As an addition to desk-based training, this approach is very effective in building awareness of the risks and hazards that exist in daily workplace activities, such as working at heights, rotating parts and electrical shock as it allows trainees to experience situations close to real accidents.

Onahama Smelter considers that high levels of safety performance will be maintained through cooperation between the labor union, employees, and contractors working on site. Based on this idea, company executives, representatives of the labor union and the contractors conduct activities to raise safety awareness. An example of this is the distribution of safety information to employees at the plant gates at the start of every month.

P.T. Smelting provides safety training specific to the operations being performed, with all employees participating in fire and evacuation drills.



Onahama Smelter safety promoting event



Fire drill at P.T. Smelting

HS Performance Results

Each of our production sites is implementing risk assessment as a tool to prevent accidents. The safety performance in fiscal 2011 of Metals Company is summarized below. No incidents of occupational disease or explosions/fire occurred in fiscal 2011.

■ Safety performance of Metals Company in FY 2011 *

(From January to December 2010)

Persons injured with lost workdays	Persons injured without lost workdays
2	9

[†] Only Metals Company's HQs and production sites directly managed by Metals Company

Consideration for the Local Community

Considering the health and safety of the local community and responding to local concerns is an essential component of sustainable development. P.T. Smelting conducts its operation in industrial areas where the potential impacts to the community are considered to be low and is not located within the territory of indigenous people or in the adjacent areas where they live. However, the General Affairs Section has established a contact point to respond to any requests or complaints from the local community. At a regional level, activities include making donations to the Sumatra Earthquake victims, support for local libraries (purchasing books and supporting administrative costs etc.), assistance for the expansion of local elementary school buildings and regional women's organization. No requests or complaints from the local community were received, and no critical incidents/accidents which may impact the local community occurred in fiscal 2011.

Increasing social and environmental awareness throughout the supply chain

Investment Standards, Procurement Standards

Metals Company purchases about 1.9 million tons of copper ore annually from overseas mines for supply to our smelters. To secure a long term, stable supply, we have invested in four mines outside of Japan (Los Pelambres Mine and Escondida Mine in Chile, Huckleberry Mine in Canada, Copper Mountain Mine in Canada and Batu Hijau Mine in Indonesia). Following the start of operations at Copper Mountain Mine in Canada in 2011, we expect the ratio of ore procured from invested mines to reach 75% of our target. Though we do not have operational control and management of these mines as our investment is below 50%, from the perspective of CSR supply chain management, we are monitoring the compliance status with environment-related standards regulations, permits / licenses, and the working conditions at these mines as well as supporting the mine operations regarding environment and local community issues as a shareholder.

As part of our CSR supply chain management activities, in July 2009 we developed "CSR Investment Standards" to evaluate mines in case of investment and "CSR Procurement Standards" to evaluate external mines i.e. mines in which we don't invest, from which we purchase ore. The ICMM 10 Principles for Sustainable Development, especially mine related principles (Principles 3, 7 and 9) and various social & environmental guidelines for mine development were used in drafting of the standards. The outlines of both standards are summarized in the column on the right-hand side.

Implementation of the Standards

Between May and June 2010, a questionnaire based on the Standards was sent to the four mines in which we invest and the ten mines from which we purchase ore. We have received a response from all these mines. The data collected is used to assess the mines' level of social and environmental consideration with the results of our review communicated to the mines. To improve our process for assessing CSR aspects of mine operations, we will periodically review and revise our questionnaire.

Metals Company

Outline of CSR Investment Standards

Protection of basic human rights

Protect the basic human rights of people impacted by business operations. Consult with stakeholders regarding local community issues.

Mining and protected areas

Identify and evaluate impacts to cultural heritage and protected areas, and risks to biodiversity at different stages of our business. Develop and implement mitigation measures.

Mining and indigenous people

Understand and respect the society, economy, environment, culture and rights of indigenous people. Conduct social impact evaluation of indigenous people for new mine investments and provide appropriate compensation.

Relationship with local community

Verify if there are any conflicts or lawsuits with local communities. Hold consultation or dialogue to explain business plans.

Environmental Preservation

Conduct Environmental Impact Assessments and obtain appropriate permits. Development of specific plans for reducing the negative environmental impacts of mine development and operation.

Mineral resources and economic development

Sustainable economic development at regional or national level.

Metals Company:

Outline of CSR Procurement Standards

Continual improvement of environmental performance

- Implement environmental management systems focusing on continual improvement
- Reduce negative environmental impacts in mine development and operation
- Consider protection of natural areas and biodiversity
- Consultation with stakeholders on environmental issues

Continual improvement of occupational health and safety

- Implement HS management systems focusing on continual improvement
- Protection of employees and contractors from occupational disasters. Disease prevention measures including local communities

Protection of basic human rights

- Prevention of forced and child labor
- Elimination of harassment and discrimination
- Avoidance and compensation for forced resettlement
- Protection of indigenous people
- Management and record of complaints and conflicts from stakeholders

Non-use of Conflict Minerals

With the enforcement of amendments to 'Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010' by the US Securities and Exchange Commission (SEC), non-use of conflict minerals is being required from our customers. Metals Company has never used minerals produced in the conflict ridden countries including the Democratic Republic of the Congo. However, to clearly show its compliance with this requirement, and reinforce its response as a custom smelter, Metals Company revised its CSR standards in October 2011 with the inclusion of specific note regarding "non participation in militia groups etc. suspected of human rights violation in conflict ridden countries" under the 'protection of basic human rights' item. We accept all requests from our customers to issue a Non-use of Conflict Minerals certificate.

Social and environmental considerations in overseas mines

The mines in which Metals Company is involved include ones in operation and in exploration stage. In both cases, aside from verifying compliance with regulatory requirements, various voluntary activities relating to environmental and social aspects are conducted.

Examples of Environmental Protection Activities

Huckleberry Mine (operation stage)

- Water quality monitoring in the wastewater pit
- Acid drainage prevention measures
- Countermeasures for mine closure (maintenance of water quality, structural monitoring of a tailing dam)
- Monitoring of aquatic species living in nearby rivers and lakes
- Measures for sealing water into the tailing dam
- Tree planting around mine facilities

Namosi mining area (exploration stage)

- Water quality monitoring studies of rivers in the area
- Element analysis in sediment and soil
- Biodiversity baseline survey
- Archaeological research

Examples of Activities in Social Aspects

Los Pelambres Mine (operation stage)

- Prioritizing hiring of local people for on-site operations
- Enhancing education and medical care, contributing to the creation of new employment (e.g. construction of vocational training schools, expansion of existing hospital facilities and providing funding to vineyards)
- Enhancing infrastructure by direct funding (e.g. construction of university auditoriums, maintenance of roads, construction of irrigation facilities, conservation of archaeological resources and tree planting)
- Donation to national poverty eradication programs

Namosi mining area (exploration stage)

- Prioritizing hiring of local people
- Sponsorship contract for the local rugby team
- Scholarship system for university students
- Physical and material support for the renovation and relocation of local junior high and nursery schools
- Renovation of a local church
- Maintenance and urgent repairs to local roads
- Supporting emergency personnel from local NPO and donation of AED to the community

Re-development of Copper Mountain Mine

Copper Mountain Mine in southern British Columbia (BC), Canada, in which our company owns a 25% stake, received construction approval from the Environmental Mining Council of BC on April 1, 2010. Construction was completed on schedule in June, 2011, followed by the re-start of operations. Good relationships with the local community, Princeton City and indigenous people have been established through active communication of the mine development plan. The mine has also entered into an agreement on mining operations with indigenous people living in the project area. About 1,700 people including citizens participated in the opening ceremony of the mine in August, 2011. An active dialogue is in place with local people including invitations to tour the mine and employment of indigenous people, etc.



Opening ceremony



The mine tour

Local Procurement

Metals Company strategically locates production sites close to areas from where raw materials are sourced reducing the environmental impacts associated with the transport of ore. P.T. Smelting in Indonesia purchases 100% copper ore from mines in Indonesia and 50% of auxiliary material and goods within Indonesia thereby contributing to the local economy. In Japan, Onahama Smelter purchases auxiliary material from suppliers located in the same city. About 15 thousand tons per month of calcium carbonate is used as raw material in the production of gypsum, a smelting by-product, all of which is purchased from a neighboring factory. About 2.4 thousand tons per month of silica is used as an auxiliary material in the copper smelting process, of which 100% is purchased locally.



Onahama Smelter and surrounding area

Striving for Materials Stewardship

Materials stewardship is a concept which aims to maximize the value of resources in our society and minimize impacts to people and the environment through the complete life cycle of the resource, such as mining, processing, designing, using and disposing, which is beyond the bounds of an individual business. Put forward by the ICMM, of which we are a member, materials stewardship is attracting a great deal of attention as an essential new approach to CSR, particularly for global mining and metals companies.

Figure Conceptual Framework of Material Flow



Our company incorporates the concept of materials stewardship and undertakes various activities in each stage in the material flow.

Mine site development and Procurement: We strive to implement environmental conservation and contribute to regional development activities in our joint exploration areas (refer to p.15 for details). As part of the procurement process, we assess social and environmental impacts of our invested mines using our CSR Investment Standards, and our CSR Procurement Standards for ore procured from mines with which we have no capital ties (refer to p.14 for details).

Smelting: Our proprietary smelting process, the Mitsubishi Process, enables energy saving and cost reductions in operations whilst minimizing emissions of pollutants and forms part of our goal to manufacture and supply our products with no pollution and high efficiency. In addition, through strict operational controls from smelting to processing within our groups, we can reuse scrap copper as part of our resources conservation approach.

Product design and safety: We develop products containing no heavy metals such as lead, and jointly research with our customers how to maximize the efficient use of copper. We have established the "hazardous chemical substance control rules" to control the heavy metal or hazardous substance content of our products, and check the compliance status through quality audits and compliance with the rules in daily operations. We will strive to deliver information on safety use to our customers for

example, by attaching a MSDS (Material Safety Data Sheet) to our products at the time of supply.

Disposal: Our recycling operations, one of our core operations driving our commitment toward materials stewardship, aims to create closed loop material flow cycles by extracting valuable metals from shredder residue from end-of-life vehicles and used home appliances. By minimizing the amount of waste going to landfill, we are aiming to reduce our environmental impact and promote the effective use of resources throughout the material cycle.

Compliance with Chemical Substance Regulation

In recent years there has been a marked trend towards stricter regulatory control over chemicals management, particularly in Europe with the introduction of the Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

As an exporter of copper alloy to European markets Metal Company is required to comply with requirements of REACH. We successfully completed our registration for copper, ahead of the required deadline, in November 2010. In addition, we are also in compliance with requirements of REACH regarding preparation of Safety Data Sheets (SDS) that are prepared in accordance with the CLP regulation^{†1}, which provides the legal framework for introduction of GHS^{†2} in Europe.

Outside of Europe, to support our product compliance we also closely monitor changes in chemical regulations as different countries are at different stages in reforming their chemicals management systems.

In Japan, amendments to Kashinoh (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.) regarding notification came into effect in April, 2011. Metals Company successfully completed appropriate notification for products and intermediates in June, 2011. Metals Company worked closely with group companies in identifying applicable substances and data collection for notification purposes taking a leadership role in successfully completing notification for the whole group.

Given the upstream position of the smelting industry in

the metals supply chain, we will continue to implement appropriate chemical management practices to support compliance with changing regulatory requirements to minimize the potential for disruption to the supply chain.

^{†1} CLP: Abbreviation for Classification, Labeling and Packaging of substances and mixtures. CLP is a regulation issued by the EU in 2008 regarding the application of the GHS to the classification, labeling and packaging of chemical substances.

^{†2} GHS: Abbreviation of Globally Harmonized System of Classification and Labeling of Chemicals .GHS is a system to classify and label etc, chemical substances in accordance with a global standard. It is published by the United Nations.

Editorial Note

We have produced this Supplementary Data Book since fiscal 2010 to communicate the detailed CSR activities of Metals Company.

We will continuously and proactively develop our CSR activities with contribution to society and the environment including ICMM related initiatives.



Contact for more information

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