Metals Company
Supplementary Data Book 2017
For People, Society and the Earth
MITSUBISHI MATERIALS
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.

The Metals Company, one of the in-house operating companies of Mitsubishi Materials, is a member of the ICMM† (related article: p. 4), which has as one of its objectives promoting sustainable development in the mining and metals industry. To ensure accountability for our mining and metal sector operations, we aim to make appropriate disclosure and strive for transparency in the information we provide. As part of our effort to meet this objective, we publish this Supplementary Data Book to provide detailed information on the Metals Company’s CSR activities to supplement Mitsubishi Materials’ “CSR Report 2017.”

Please also refer to the Mitsubishi Materials’ “CSR Report 2017,” which also includes information regarding the Metals Company’s CSR activities.

†† ICMM: The International Council on Mining and Metals is an organization formed by the world’s leading mining and metals companies and has a clear commitment to leading sustainable development in the mining and metals sector.
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Period Covered by This Report
Fiscal year 2017 (Mitsubishi Materials Corporation Fiscal Year: April 2016 to March 2017)

Reporting Boundary
Mitsubishi Materials’ Metals Company and its four affiliated smelting companies (Hosokura Metal Mining Co., Ltd., Onahama Smelting and Refining Co., Ltd., Materials Eco-Refining Co., Ltd. (MERC), Indonesia P.T. Smelting (P.T. Smelting))

Release Date
December 2017

Referred Guideline
GRI (Global Reporting Initiative) Sustainability Reporting Guideline (version 4.0)

The Metals Company and CSR P3

Environmental Report P6

Environmental Preservation and Environmental Technologies

Social Report

Training and Harnessing a Diverse Range of Human Resources P10

Occupational Safety and Health P11

Responsibility in the Value Chain P12

Operations of the Metals Company and affiliated smelting companies

This Data Book, along with the information covered in Mitsubishi Materials’ “CSR Report 2017” 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. 83 in Mitsubishi Materials’ “CSR Report 2017.”

* Group companies
Material Issues
Mitsubishi Materials recognizes that the sustainability of society as a whole has a profound impact on the future of corporate activities, and has identified issues in its management that carry a high level of importance. For the details and action associated with these issues, please refer to the "CSR Report 2017."

Mitsubishi Materials’ Seven Material Issues
① Resources and Recycling
② Environmental Preservation and Environmental Technologies
③ Training and Harnessing a Diverse Range of Human Resources
④ Occupational Safety and Health
⑤ Responsibility in the Value Chain
⑥ Communication with stakeholders
⑦ Governance

The 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 through purchases of ore from mines but also to obtain copper and other precious and rare metals from recycled materials, in order to preserve natural resources. The Metals Company undertook action plans in FY 2017 in the following areas.

Metals Company: FY 2017 Results and Future Tasks
① Resources and Recycling
[Target] Initiatives ensuring the stable procurement of raw materials
[FY2017 Results]
- Improving operations at existing mines and examining future direction
[Future Tasks]
- Assessing and making improvements to existing projects, and developing new projects

[Target] Expansion of the recycling business (Metals business)
[FY2017 Results]
- Establishment of a sampling site in the Netherlands to expand E-scrap processing
[Future Tasks]
- Steady launch and operation of a sampling center in the Netherlands to expand E-Scrap processing

② Environmental Preservation and Environmental Technologies
The environmental impact of our operations and steps to reduce our impact.

③ Training and Harnessing a Diverse Range of Human Resources
Global human resources management in the Metals Company.

④ Occupational Safety and Health
Actions to create a safe and healthy working environment taking into account the nature of our operations.

⑤ Responsibility in the Value Chain
Environmental and social actions in copper ore procurement.

In this Data Book, we will provide information related to the following four of the seven material issues, which we consider especially important to the Metals Company.

<table>
<thead>
<tr>
<th>Material Issues</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>② Environmental Preservation and Environmental Technologies</td>
<td>6</td>
</tr>
<tr>
<td>③ Training and Harnessing a Diverse Range of Human Resources</td>
<td>10</td>
</tr>
<tr>
<td>④ Occupational Safety and Health</td>
<td>11</td>
</tr>
<tr>
<td>⑤ Responsibility in the Value Chain</td>
<td>12</td>
</tr>
</tbody>
</table>
As an ICMM Member
Supporting the Basic Principles of the ICMM

The International Council on Mining and Metals (ICMM), of which Mitsubishi Materials Corporation (MMC) is a member, was established in 2001 to play a central role among major worldwide resource producers and bring about sustainable development in the mining and metals industry. Working in coordination with a range of international organizations including the United Nations, World Bank, OECD, ILO and various NGOs, ICMM is a group at the forefront of industry-wide CSR activities, tackling issues including local communities, economics and the environment in relation to the global mining and metals industry, holding discussions and developing guidelines to resolve issues including safety and human rights, and lobbying government organizations. ICMM comprises 23 corporate members, primarily major resource producers. In Japan, members include Mitsubishi Materials, JX Nippon Mining & Metals and Sumitomo Metal Mining, as well as Japan Mining Industry Association. We joined the ICMM in 2002 and promote CSR initiatives within our operations. The ICMM advocates 10 Principles for Sustainable Development, to which member companies are required to commit. The spirit of the ICMM’s 10 Principles are reflected in the Mitsubishi Materials Code of Conduct.

The ICMM 10 Principles for Sustainable Development

1. Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development
2. Integrate sustainable development in corporate strategy and decision-making processes
3. Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities
4. Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks
5. Pursue continual improvement in health and safety performance with the ultimate goal of zero harm
6. Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change
7. Contribute to the conservation of biodiversity and integrated approaches to land-use planning
8. Facilitate and support the knowledge-base and systems for responsible design, use, re-use, recycling and disposal of products containing metals and minerals
9. Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities
10. Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner. Effectively report and independently verify progress and performance

Moreover, the 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. ICMM Principles for climate change policy design
   - Work on the reduction of greenhouse gas emissions
3. Mercury Risk Management
   - Implement appropriate management of mercury
4. Mining and Protected Areas
   - Do not undertake exploration or mining on World Heritage properties
5. Indigenous Peoples and Mining
   - Respect indigenous peoples and their rights
6. Mining: Partnerships for Development
   - Enhance mining’s social and economic contribution
7. Tailings Governance
8. Water Stewardship
9. Heritage properties
10. Do not undertake exploration or mining on World Heritage properties
11. International Council on Mining and Metals (ICMM)

The Metals Company has for several years implemented measures supporting the ICMM position statements. For instance, we established a company-wide initiative in November 2008 regarding our greenhouse gas emissions (Statement 2) and have stepped up efforts to tackle global warming. Regarding Statement 3, mercury is contained as an impurity in copper concentrate, a raw material in one of our core businesses of copper smelting. We will continue our initiatives for the appropriate management of mercury in accordance with the amended Waste Management and Public Cleansing Act which will take effect on October 1, 2017 in response to the Minamata Convention on Mercury taking force in August 2017. Although we are not directly involved in the day-to-day operations of mines, we monitor the environmental and social compliance of mines in which we invest (Statements 4 to 6) by implementing our CSR Investment Standards, which we established in July 2009. Regarding Statement 7, information on the management of abandoned mines is listed on p. 51 and 52 in Mitsubishi Materials’ “CSR Report 2017.” With respect to Statement 8, we have reported on water usage and emissions into bodies of water in the CSR reports we have published to
date. In addition, as a member of the 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 of payments by companies in extractive industries such as oil, gas, metal and mining 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. The ICMM has supported the goals of EITI since its establishment in 2005. The Metals Company supports the objectives of the EITI in promoting growth and poverty reduction through responsible resources development, as both a member company of the ICMM and a shareholder of P.T. Smelting based in Indonesia, an EITI member country.

Communication with the ICMM
The ICMM makes use of dialog with member companies to formulate policy, and in June 2017 ICMM CEO Tom Butler came to Japan and visited Japanese member companies as part of his itinerary. Mr. Butler met with Vice President Iida and Senior Managing Executive Officer Suzuki and engaged in a productive exchange of views. A press conference was also held at the Japan Mining Industry Association to disseminate information on the wide-ranging activities of the ICMM and the important pioneering initiatives being pursued by its Japanese member companies. The ICMM has also taken an interest in efforts by Japanese member companies to manage mines throughout the life cycle from participation in mine development through to closure, as well as metal recycling efforts. To this end, Mr. Butler toured Hosokura Metal Mining Co., Ltd., a member of the MMC Group. Mr. Butler commented that “management that envisages the handling of abandoned mines in particular is excellent.”
Environment Management
The Metals Company and the Environment
The 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 responsible procurement process for raw materials, implementation of energy saving programs, recycling activities and measures for biodiversity preservation.

### Energy and Material Balance

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td>Products</td>
</tr>
<tr>
<td>Energy</td>
<td>Air emissions</td>
</tr>
<tr>
<td>Water</td>
<td>Wastewater</td>
</tr>
<tr>
<td></td>
<td>Waste</td>
</tr>
</tbody>
</table>

Compliance with Environmental Legislation and Initiatives in Support of a Recycling-Oriented Society
The Metals Company’s sites in Japan have obtained ISO 14001 certification to support environmental management and compliance. 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, the Metals Company received no administrative fines, for example fines for environmental violations, operational stop orders or revocation of environmental permits, in FY 2017. The Metals Company has declared a business policy of “contributing to a recycling-oriented society through metals from manufacturing to recycling,” and this forms the basis of our operations.

Emission into the Air
The generation of SOx and NOx atmospheric emissions is an unavoidable result of fossil fuel combustion. To minimize atmospheric emissions, each site implements programs such as controlling emissions of SOx, dust and other pollutants from exhaust systems, regular equipment inspections and dust control at roads and storage facilities.

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 FY 2017 was 288,637 thousand m³, of which more than 90% (269,006 thousand m³) was sourced from seawater. The remainder was sourced from fresh water. We promote the installation of closed-loop water treatment systems and water re-use.

### Freshwater Consumption by Source (1000 m³/year)

<table>
<thead>
<tr>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>River/Lake</td>
<td>12,294</td>
<td>13,633</td>
</tr>
<tr>
<td>Sewage</td>
<td>18</td>
<td>173</td>
</tr>
<tr>
<td>Marine</td>
<td>279,894</td>
<td>284</td>
</tr>
<tr>
<td>Total</td>
<td>292,205</td>
<td>303</td>
</tr>
</tbody>
</table>

* The reason why the wastewater amount is greater than the water consumption amount is due to the treatment of wastewater from the springs (ground water) of 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 as well as strict management and inspection of wastewater treatment plants.
Amount of Chemical Substances Released/Transferred Subject to the PRTR Act

The amount of chemical substances released and transferred by each facility is aggregated and reported annually based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Act). The Metals Company’s released/transferred amount for FY 2017 was 247 tons. Although this is an increase compared with the release and transfer amounts in FY 2016, it marks a decrease compared with FY 2015 levels.

Promotion of a Recycling-Oriented Society
Use of Recycled Material

The raw material input in FY 2017 was 3,576 thousand tons, of which 508 thousand tons (14.2%) came from recycled materials, such as shredder residue and waste substrates, etc., and 212 thousand tons of the recycled materials came from industrial waste that would otherwise have gone to landfill.

The Metals Company operations consume a large amount of natural resources including copper concentrate. 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.

Reduction of Waste Generation

The total amount of waste generated was 3,056 tons in FY 2017. Approximately 3% of this was specially controlled industrial waste. Waste plastic, wood waste, and waste acid accounted for approximately 26%, 24%, and 18% respectively.

Industrial Waste Generated by Types (t)*

<table>
<thead>
<tr>
<th>Type</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sludge</td>
<td>163</td>
</tr>
<tr>
<td>Waste Oil</td>
<td>468</td>
</tr>
<tr>
<td>Waste Acid</td>
<td>554</td>
</tr>
<tr>
<td>Waste Alkali</td>
<td>8</td>
</tr>
<tr>
<td>Waste Plastic, Scrap Rubber</td>
<td>808</td>
</tr>
<tr>
<td>Wood Waste</td>
<td>720</td>
</tr>
<tr>
<td>Glass/Concrete/Pottery Waste</td>
<td>192</td>
</tr>
<tr>
<td>Demolition Waste</td>
<td>31</td>
</tr>
<tr>
<td>Waste Electric Machinery and Apparatus, Batteries</td>
<td>3</td>
</tr>
<tr>
<td>Mixed Waste</td>
<td>3</td>
</tr>
<tr>
<td>Specially controlled Industrial Waste</td>
<td>106</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,056</strong></td>
</tr>
</tbody>
</table>

* Excluding P.T. Smelting
* Figures after the decimal point are rounded off.
We confirmed from reviews of industrial waste manifests that approximately 87% of the total domestic industrial waste generated in FY 2017 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 treated at the Mitsubishi Materials Group companies where possible or transported to other smelting companies for recycling as necessary. In this way, we try to maximize the 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, they are disposed of by external contractors. Through this approach, we reduce the amount of industrial waste going into landfill.

**Breakdown of Industrial Waste by Disposal Method (FY 2017)**

<table>
<thead>
<tr>
<th>Method</th>
<th>Amount (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill</td>
<td>410</td>
</tr>
<tr>
<td>Recycling</td>
<td>2,646</td>
</tr>
</tbody>
</table>

*Excluding P.T. Smelting

P.T. Smelting is a subsidiary company based in Indonesia. The data on waste generated by this subsidiary are excluded from the data presented on Industrial Waste Discharge by Type and Breakdown of Industrial Waste by Disposal Method since the waste classification system is different from that of Japan. We conduct separate monitoring on waste generated by this subsidiary. For FY2017, the amount of waste discharge at P.T. Smelting was 2,948 tons, the entire amount of which was recycled.

**Preventing 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 FY 2017 was 13,863 terajoules, an increase of 1,113 terajoules from 12,750 terajoules in the previous year.

The Metals Company has set for itself the target of achieving an “annual reduction of 1% in energy per unit” through the implementation of energy saving programs. In FY 2017, we reduced energy use by approximately 261 kiloliters of crude oil equivalent, which amounts to JPY 16 million in cost reduction. The breakdown of the reduction is summarized below.

**Energy Saving Results of FY 2017**

<table>
<thead>
<tr>
<th>Location</th>
<th>Reduction of Cost (Million Yen)</th>
<th>Reduction of Energy Use in Crude Oil Equivalent (kL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akita Refinery</td>
<td>0.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Naoshima Smelter &amp; Refinery</td>
<td>10.4</td>
<td>137.5</td>
</tr>
<tr>
<td>Sakai Plant</td>
<td>5.5</td>
<td>121.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.0</strong></td>
<td><strong>260.7</strong></td>
</tr>
</tbody>
</table>

*Excluding MERC and P.T. Smelting.

Key examples of energy saving measures include the introduction of inverters for blowers at the Naoshima Smelter & Refinery and the installment of pre-heater burner equipment at the Sakai Plant.

**Energy Saving from Logistics Operations**

In FY 2017 total energy use in logistics was 189 terajoules. Modes of transportation include ships and trucks, with ships accounting for 136 terajoules or 72% of total logistics energy use. The greenhouse gas (GHG) emission from our logistics was 13,194 tons-CO₂. One of the major steps that can be taken to improve unit energy consumption (energy consumption per t-km) is a modal shift from truck-based transportation to more efficient ship-based transportation. On a ton-kilometer basis, the
percentage of ship usage for the Metals Company has reached 82%.
We are also working to improve unit energy consumption for truck-based transportation through improved capacity fulfillment rates and a shift to larger trucks (transportation involving larger lots).

Reducing GHG Emission
The FY 2017 GHG emissions of the Metals Company were 1,211 million tons-CO₂ equivalent, an increase of approximately 79 thousand tons compared to the previous fiscal year. Approximately 76% of the emissions were emitted through energy use with the remainder coming from waste processing and industrial processes.

<table>
<thead>
<tr>
<th>GHG</th>
<th>FY 2017 Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂</td>
<td></td>
</tr>
<tr>
<td>Energy Use</td>
<td>914,851</td>
</tr>
<tr>
<td>Non Energy Use</td>
<td>136</td>
</tr>
<tr>
<td>Waste</td>
<td>291,596</td>
</tr>
<tr>
<td>Other GHG*3</td>
<td>4,169</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,210,752</strong></td>
</tr>
</tbody>
</table>

*1 Excluding emissions from logistics
*2 The emissions were calculated in accordance with the “Manual for Calculating and Reporting Greenhouse Gas Emissions” (version 4.3).
*3 HFCs, PFCs, SF₆, CH₄, N₂O

As the main source of GHG emission is energy use, the Metals Company is working on energy saving activities to reduce GHG emissions. For example, the Onahama Smelter & Refinery recycles shredder residue (SR) generated from end-of-life vehicles and used home appliances. The smelter initially treated SR by mixing it with ore in the existing reverberatory furnaces. In December 2008, as 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 SR. The pulverized coal burner used at the reverberatory furnace was inefficient for SR treatment, requiring the use of large amounts of coal and heavy oil in combustion. To overcome this, the coal burner was converted from direct combustion to indirect combustion in October 2009, a move that helped to significantly reduce coal consumption. As a result of this reduction, the air-heating furnaces used for drying coals became excess equipment. The furnaces were renewed in February 2011, and the amount of LNG used for drying coals was reduced significantly.
E-Scrap receiving equipment was brought into operation in October 2013. The use of heat from combustion has made it possible to further reduce the amount of GHG emissions from energy use.

Conservation of Biodiversity
Preservation and Recovery of Biodiversity Efforts at P.T. Smelting
P.T. Smelting is engaged in ongoing mangrove planting efforts in the local Gresik Regency. The company has been pursuing the initiative on a yearly basis since 2014. As of 2017, a total of 33,000 seedlings have been planted, earning high praise from the local government and elsewhere. The mangroves planted in the first year have now grown to more than three meters in height, and across the plantation, more than 95% of the planted seedlings have grown well. The effort represents a considerable contribution to preserving the biodiversity of the area, as suggested by sightings of wildlife in recent years.

Planting mangrove trees
Human Resources of the 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 Materials Group Policy. We are also promoting diversity in the workplace in response to the low birth rate and aging society in Japan.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>137</td>
<td>3</td>
<td>140</td>
</tr>
<tr>
<td>Full-Time Employees</td>
<td>520</td>
<td>50</td>
<td>570</td>
</tr>
<tr>
<td>Temporary Staff</td>
<td>67</td>
<td>55</td>
<td>122</td>
</tr>
<tr>
<td>Total</td>
<td>724</td>
<td>108</td>
<td>832</td>
</tr>
</tbody>
</table>

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

Employee Turnover* (number of people)

<table>
<thead>
<tr>
<th>Number of Turnovers</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

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

Respecting 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 confirms the age of applicants with 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. As of the end of June 2017, 364* out of the 382 total employees (95.3%*) 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. As of the end of June 2017, 41* out of 59 managers above the assistant manager level (69.5%*) 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 management strategy, finance and safety, as well as operation-related training such as environment/quality management and equipment maintenance. Training programs are established so that employees can take training that corresponds to their job functions. In welfare packages, we have also expanded the housing loan system and the subsidization for company trips.
Occupational Safety and Health Enhancing and Strengthening Safety Management Organizations

“Giving top priority to ensuring safety and good health” has been the basic policy of Mitsubishi Materials. This policy is based on the idea that safety is essential for the stable life and welfare of employees and their families, for stable operation, and for the development of the company. In short, ensuring safety is one of the obligations of every company, one of the duties of their employees, and an essential condition for the continuation and development of each business.

Health and Safety (HS) Promotion Activities

Each production site of the Metals Company implements safety management applicable to the site-specific safety risks 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 a year. Additionally, we participate in the Safety Committee of the Japan Mining Industry Association and share information on our occupational safety and health performance with our peers in the sector. The safety statistics report of the non-ferrous metal industry is compiled by the association once a year in cooperation with the member companies. The report is helpful to understanding the safety level of our company in the industry.

HS Performance Results

The safety performance in 2016 of the Metals Company is summarized below.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>People injured with lost workdays</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

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

Looking at the safety performance of the Metals Company in 2016, there was one case of an accident with lost workdays and two cases of accidents without lost workdays at the Naoshima Smelter & Refinery, and three cases of accidents without lost workdays at the Sakai Plant. While the single accident with a lost workday matched the results of the previous year, the number of accidents without lost workdays decreased by five cases compared with the previous year. The accident with a lost workday occurring at the Naoshima Smelter & Refinery involved “a worker getting caught in or between equipment,” the two cases without lost workdays both involved “collisions.” The three accidents without lost workdays at the Sakai Plant involved “operating recoil or excessive operation,” “falling” and “cutting or scratching,” respectively.

Holding an Exchange Session for Metals Company On-site Leaders

In August 2016, an “On-site Leader Exchange Session” made up of the people supporting each Metals Company manufacturing site on the ground was held at the Mitsubishi Shindoh Co., Ltd. Wakamatsu Plant. This was the third exchange session of its kind, and was attended by a total of 30 people from sites and affiliate companies including Naoshima Smelter & Refinery and Onahama Smelting and Refining Co., Ltd. On the first day, an instructor dispatched from the Japan Industrial Safety & Health Association delivered a lecture to facilitate the acquisition of safety-related knowledge and improve awareness. On the second day, a site tour was conducted and hazard sensitivity training was provided using hazard simulation facilities. The session was extremely beneficial as an opportunity for on-site leaders to share the issues they deal with on a daily basis.

Scenes from the 2016 on-site leader exchange session
Investment and Procurement Standards
The Metals Company purchases copper ore annually from overseas mines for supply to our smelters. To secure a long-term, stable supply, we have invested in three mines outside of Japan (Los Pelambres Mine and La Escondida Mine in Chile, and Copper Mountain Mine in Canada). 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. We also support the mine operations regarding the environment and local community issues as a shareholder. To develop guidelines based on these CSR procurement activities, in July 2009 we developed “CSR Investment Standards” to evaluate mines for investment and “CSR Procurement Standards” to evaluate external mines. The outlines of both standards are summarized in the column below.

The 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
- Consult with stakeholders on environmental issues
Continual improvement of occupational safety and health
- Implement HS management systems focusing on continual improvement
- Protect employees and contractors from occupational disasters. Take disease prevention measures, including in local communities.
Protection of basic human rights
- Prevention of forced and child labor
- Elimination of harassment and discrimination
- Avoidance of compensation for forced resettlement
- Protection of indigenous people
- Management and recording of complaints and conflicts from stakeholders
- Elimination of any involvement, either direct or indirect, with militia or other armed groups in areas of conflict where there are concerns regarding human rights violations.

Addressing the Issue of Conflict Minerals
Of the four conflict minerals, the Metals Company manufactures gold bullion and tin ingots, and is required to respond appropriately as a smelter. In 2012, we set up and began implementing a conflict minerals management system. With regard to gold bullion, our compliance with the LBMA Responsible Gold Guidance was certified for the first time by the London Bullion Market Association (LBMA) in June 2013. Regarding tin, we are following the Conflict-Free Smelter (CFS) program advocated by the Electronic Industry Citizenship Coalition (EICC), and obtained CFS certification in February 2014. Certification needs to be renewed every year for both gold and tin, but we will continue to fulfill our social responsibility to be able to promise our customers a supply of gold bullion and tin ingot that is reliable and not involved in conflicts.

“The Metals Company Conflict Minerals Control Policy” is available at the URL of Mitsubishi Materials below:
This policy applies to both gold and tin.

Social and Environmental Considerations in Overseas Mines

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

Zafranal Mine Project (Peru)
Conducting an environmental impact assessment as part of the feasibility study
Together with Teck Resources Limited (headquartered in Canada) and its subsidiary, we have been participating in the Zafranal Mine Project in Peru, which is currently at the stage of conducting a feasibility study. MMC holds actual equity of 20% in Compañía Minera Zafranal (CMZ), the company that will perform operation under the project. After establishing a subsidiary in Peru, we dispatched engineers and coordinate with CMZ to continually monitor on-site conditions to drive implementation of the project.
As part of its code of conduct, CMZ has pledged to respect the local culture, values, traditions and historical assets, and to forge open and sincere long-term partnerships. To that end, CMZ has established opportunities for public dialogues with stakeholders in the area, including local residents around the project implementation zone. It also conducts individual briefings and fields inquiries. Through these activities, CMZ is endeavoring to build social trust while reflecting the views and desires of the local community.
CMZ is also engaging local residents in dialogues as part of its legal obligations to perform an environmental impact assessment, and is in the process of basic surveys on the environment and local community at the site of the future mine and the infrastructure development region.

Striving for Materials Stewardship
Materials stewardship is a concept which aims to maximize the value of resources in our society and minimize impacts on 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.

Conceptual Framework of Material Flow

Mitsubishi Materials 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. As part of the procurement process, we use our CSR Investment Standards to assess social and environmental impacts of our invested mines and our CSR Procurement Standards for ore procured from mines with which we have no capital ties.

Smelting: Our proprietary smelting process, the Mitsubishi Process, enables energy savings and cost reductions in operations whilst minimizing emissions of pollutants, forming part of our goal to manufacture and supply our products with an extremely low environmental impact 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 safe use to our customers, for example, by attaching a Safety Data Sheet (SDS) to our products at the time of supply.

Disposal: Our recycling operations, one of our core operations driving our commitment toward materials stewardship, aim to create closed loop material flow cycles by extracting valuable metals from shredder residue from end-of-life vehicles and used home appliances, bringing them back to the economy. We are aiming to reduce society’s 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 global trend towards stricter regulatory control over chemicals management.

As an exporter of copper alloy to European markets, the Metals Company is required to comply with requirements of REACH, the European regulation on chemicals. We successfully completed our registration for copper, ahead of the required deadline, in November 2010. Later, we also completed registration for silver in July 2014, nickel in June 2015, chromium in May 2016 and gold in December 2016. We also plan to complete registration for selenium in FY 2018. In addition, we are also in compliance with the requirements of REACH regarding the preparation of SDSs prepared in accordance with the CLP\(^1\) regulation, which provides the legal framework for the 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 regimes.

In Japan, amendments to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. regarding notification came into effect in April 1, 2011. The Metals Company completes appropriate notification for products and intermediates in June every year. The Metals Company works 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 EU in 2008 regarding classification, labeling and packaging of chemical substances introduced to GHS.

\(^2\) GHS: Abbreviation for Global Harmonized System. GHS is a system to classify and label etc., chemical substances in accordance with the worldwide unitary regulation. It is published by the United Nations.

Editorial Note
We have produced this Supplementary Data Book since FY 2010 to communicate the detailed CSR activities of the 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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