Ensuring Occupational Health and Safety

From its inception, the Group has always considered the maintenance of occupational health and safety to be an essential condition for the continuation of its business, and it has endeavored to provide an environment where employees can work with peace of mind. The Group drew up the Basic Policy on Health and Safety aimed at the elimination of accidents and illnesses, and strives to foster a culture of safety.

JX Nippon Mining & Metals Basic Policy on Health and Safety

We place the highest priority on ensuring the health and safety of all people working at the JX Nippon Mining & Metals Group and thereby strive to create a safe and secure workplace.

1. We will continuously improve health and safety management levels through the establishment and efficient operation of the health and safety management system.
2. We will work to identify, eliminate, and reduce hazards and harmful factors in all areas of business operations and to ensure no accidents occur.
3. We will work to maintain and improve employees’ mental and physical health by ensuring good communication and a comfortable working environment.
4. We will actively provide information and education in order to develop human resources that can act spontaneously and have strong safety competencies.
5. We will not only comply with health and safety laws and regulations but also establish and observe necessary voluntary standards.

Management Policy on Health and Safety

The Group formulates the Management Policy on Health and Safety each fiscal year. The goals and key policy measures are set based on analysis of health and safety performance in the previous year. The policy is discussed and approved by the Central Health and Safety Committee and then promulgated across the Group.

Meetings Related to Health and Safety

In compliance with the Industrial Safety and Health Act, the Group has formed health and safety committees at each operating site and in each Group company. At the Head Office, the Central Health and Safety Committee holds an annual meeting, attended by representatives of each business segment, in addition to the regular meetings held five times a year. Members go over various matters for health and safety, discuss the Management Policy on Health and Safety, and deliberate measures to prevent the recurrence of accidents. The meetings are chaired by the General Manager of the Environment & Safety Department. Health and safety patrols are conducted once a year, and Group safety staff meetings are held twice a year to discuss health and safety management status and measures and to exchange related information. Workshops are also held twice a year for employees performing actual operations. In cases where unique safety measures are found to be in place at a specific operating site or Group company, steps are taken to share these measures across the entire Group, such as by presenting implementation examples at Group safety staff meetings and conducting factory tours.

Environment and Safety Audits

Environmental and safety audits are conducted by a team under the supervision of the president to examine operating sites directly run by the Company and major domestic Group companies. Issues discovered in the audits are reported to the president. The team also notifies the operating site of the issues, requesting improvements and following up by monitoring progress. Audits were conducted at 12 sites (including Group companies) in fiscal 2017. No major matters were identified.

Organization for Occupational Health and Safety Management

Measures for Legal Compliance

To ensure full compliance with the latest revisions to laws and regulations concerning health, safety, and the environment, regular compliance inspections are performed by the Environment & Safety Department and by an outside organization, and a legal compliance monitoring system has been introduced to obtain the latest information on legal revisions on a weekly basis. When information on important legal revisions is obtained under this system, instructional handbooks and manuals are created and issued, facilitating a prompt response by each operating site. In addition, we have compiled instructional handbooks outlining laws, guidelines, notices, and other rules related to particular items in order to enhance understanding of legal requirements by those involved.
Health and Safety Activities

Safety Performance in 2017

Occupational Accidents, etc.**

Our safety record for 2017 is shown in the table below. The total number of occupational accidents at domestic operating sites declined for the second straight year, and accidents with lost work days or worse were reduced by half year on year.

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal accidents (persons)**</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Accidents with lost working days</td>
<td>12</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Accidents without lost working days</td>
<td>5</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Safety performance at domestic operating sites

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency rate of industrial accidents</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Accident severity rate**</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Explosions and fires (occurrences)**</td>
<td>8</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

Achievements of Health and Safety Activities in 2017 and Remaining Issues

As a key policy measure in our Management Policy on Health and Safety for 2017, we chose “Creating a culture of safety.” The aim is to have each operating site (workplace) take the lead in implementing measures centered on the key safety activities to create a culture of safety in their own workplace and eliminate accidents there.

Activities to Build a Safety Culture

Definition of a Safety Culture
Safety culture is the assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, protection and safety issues receive the attention warranted by their significance.

(Adapted from the definition by the International Atomic Energy Agency [IAEA])

The Group has undertaken various activities toward creating a culture of safety, having made “Safety First” part of the Basic Policy on Health and Safety, and having adopted the above definition of safety culture.

Despite these efforts, in 2016 there was a fatal accident at a Group company, following an earlier one in 2014. Through 2016, the Group set up counseling services for providing face-to-face, telephone, and online counseling to support employees and their families in maintaining good mental health. In addition, employee stress checks are provided annually. In fiscal 2017, they were provided for 2,568 JX Nippon Mining & Metals employees and 3,289 employees of Group companies.”

Other Activities

Representatives of workers at each site give explanations of improvements in the workplace (including demonstrations), followed by an assessment of their responses to questions by a panel of reviewers made up of executives and managers. Having presentations take place in the workplace reduces the feeling of distance between reviewers and presenters, improving workplace cohesion and safety awareness, while helping to improve communication between workers and management.

Safety Commendations
A safety commendation system exists at operating sites directly run by the Company and domestic affiliated companies. Through this system, the president officially commands operating sites that have continuously operated without an accident for a designated period, the length of the period being determined according to the number of personnel. In fiscal 2017, commendations were given to the following five sites: Shimoda Hot Springs, Toyoha Mine, Hokushin Mining, JX Metals Precision Technology Kakagawa Works, and JX Metals Trading Kurami Office.

Promoting Physical and Mental Health

The Group realizes how important it is that all employees are able to maintain good physical and mental health as they work. We also recognize the significance of good mental health in ensuring an enjoyable life for employees and their families as well as heightening productivity and making the workplace experience more fulfilling. The Group set up counseling services for providing face-to-face, telephone, and online counseling to support employees and their families in maintaining good mental health. In addition, employee stress checks are provided annually. In fiscal 2017, they were provided for 2,568 JX Nippon Mining & Metals employees and 3,289 employees of Group companies. Workshops on improving the working environment and other such events are held as necessary, as we take various measures to reduce stress and provide a better place to work.

Materials

Safety Commendations
Safety performance at offshore operating sites

<table>
<thead>
<tr>
<th>Category</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accidents with lost working days</td>
<td>8</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Total accidents</td>
<td>15</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

For the peace of mind of society

Material Issues
Ensuring Occupational Health and Safety

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Operating sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal 2016</td>
<td>Hibi Smelter, Pan Pacific Copper Co., Ltd. (including Hibi Kyodo Smelting Co., Ltd., Tamano Smelter)</td>
</tr>
</tbody>
</table>
Health and Safety Activities

JXTG Group Safety Education Center

Role as an Educational Facility of the JXTG Group

To eliminate accidents, enhancing the risk sensitivity and safety awareness of individual employees is essential. Risk sensitivity means the ability to correctly recognize risks as dangerous. Sharpening this ability leads employees to follow rules and keep away from dangers. The Safety Education Center attempts to raise risk sensitivity by providing trainees with simulated experiences of accidents that have actually occurred in the past so that they can come to recognize the dangers instinctively. Around half of all accidents are recurrences of past accidents. For this reason, undergoing training at the center is an effective way to reduce the number of accidents that occur.

Further efforts are being made to raise the quality of the education, by building a more effective curriculum while improving the teaching skills of instructors.

Examples of Experiential Risk Training at the Safety Education Center

Introduction of Virtual Reality (VR) Technology for Experiential Risk Training

The effectiveness of safety education by means of simulated risk experiences depends on (1) making trainees feel what it is like to be involved personally in an accident, and (2) making them think about the psychological state of victims, causes, and accident-prevention measures. To enhance this effectiveness, VR technology has been introduced for four kinds of experiential risk training: steam explosion, being struck by heavy machinery, entanglement in a high-speed rotor, and falling from a high place. By creating a vivid impression that an occupational accident is occurring right in front of the trainees, this technology enables more realistic training.

Benefits of Training at the Safety Education Center and Strengthening of Supplementary Education at Operating Sites

During the period from January 2013 when the center was established to March 31, 2018, the total number of trainees had reached 7,791. The annual accident rate per 1,000 employees for those who have undergone the training is around half of those who have not; moreover, the types of accidents covered by the curriculum have been decreasing in frequency. Such results show the clear benefits of this education. Due to the center's limited capacity to accommodate trainees, however, it currently takes three to four years to provide training to all employees and others working in the Group, including subcontractors. To prevent a drop in risk sensitivity during this time among those who have undergone training, similar safety education programs have been started at individual operating sites. The educational content is tailored to the situation at each operating site, such as its accident history and rules. Furthermore, education of the instructors responsible for experiential risk training at each site raises their ability as promoters of safety and enhances their skills.

Training of these safety education instructors is the responsibility of the Safety Education Center. Through the training, they learn guidance principles and classroom skills from the three viewpoints of leadership, motivation, and communication.

Heavy Machinery Automatic Braking System “WS System”

The “WS System” (Worker Safety System) developed by NIPPO Corporation is the first automatic braking system for heavy machinery to be certified as compliant with Safety 2.0,* a safety standard drawn up by the Institute of Global Safety Promotion. Unlike conventional systems that give warnings, the WS System has been developed to prevent serious accidents by physically stopping the heavy machinery when its sensors detect an obstacle via RFID (Radio Frequency Identification), stereo cameras, or other means. The system using RFID works by emitting a magnetic field from the back of the vehicle when the heavy machinery is reversing.

Prevention of collisions between heavy machinery and people

When the system detects radio waves emitted by an RF tag on a worker’s helmet within the magnetic field, it automatically operates the brakes to stop the vehicle. An advantage of this system is that RFID is not easily impacted by weather, visibility, temperature, or obstacles. Moreover, the system can readily be installed or removed, as it requires no alterations to the hydraulic piping or control equipment of the heavy machinery.

The Group has set prevention of collisions between heavy machinery and people as a key safety issue. Behind this choice of an issue to address is the high risk of collisions on the manufacturing floor, where forklifts and other such machinery are in frequent use, increasing the potential for serious accidents. The Group has already considered and implemented various measures at workplaces, including demarcation of separate routes for heavy machinery and people. Currently, we are involving the entire Group in considering the introduction of measures that go a step beyond conventional approaches, making use of the latest preventive safety technology.

* Safety 2.0: A standard developed to promote widespread use of cooperative safety (Safety 1.0) and equipment cooperation (Safety 1.5), which take advantage of information and communication technology to achieve both a reduction in accidents due to lack of safety and an increase in productivity.
Preventing Collisions between Heavy Machinery and People

Verification Trial at Saganoseki Smelter & Refinery, Pan Pacific Copper

Currently, the Group is setting standards for prevention of collisions between equipment such as heavy machinery and workers or other people. As a further measure for preventing such accidents, a pioneering verification trial was conducted at the Saganoseki Smelter & Refinery of Pan Pacific Copper to study the possibility of introducing a worker safety system employing RFID technology in large-scale heavy machinery on the manufacturing floor.

The trial tested the system’s efficacy during heavy machinery work inside the hold of a copper carrier ship. The first step was to confirm the functioning of the sensor and its capability by verifying the effects of magnetic field strength and obstacles on detection distance. Next, automatic braking was tested and confirmed.

While these tests showed some variability in braking distance due to conditions such as magnetic field strength, environmental factors such as obstacles, and the machinery operator’s actions, the reliability and effectiveness of this system as a safety measure were confirmed. Based on the trial results, we are aiming for full introduction of the WS System in the Saganoseki Smelter & Refinery during fiscal 2018.

At the Saganoseki Smelter & Refinery, we were quick to conduct trial introduction of a WS System aimed at preventing collisions between heavy machinery and people. The heavy machinery in which the system was installed for the trial was a wheel loader, used for scooping operations in the hold of a copper carrier ship. This is a workplace with a high risk of collisions, since the wheel loader gathering up copper concentrate operates alongside workers scraping off the copper concentrate, in a narrow space.

Since rules on separation of people and vehicles are strictly enforced in the hold, during the trial there were no cases of the vehicle stopping due to detection of a worker behind it. Near the bow of the ship or other narrow parts of the hold, however, workers must sometimes approach very close to the side of the heavy machinery, and there were cases where such movements were detected. When the heavy machinery stops because it detects someone in the vicinity, the brake will not be released until the person moves away. In this regard, it was confirmed to be a highly effective system.

To prevent collisions between heavy machinery and people, first and foremost it is necessary for the operator of the machinery to confirm that there are no people in the vicinity; but as an added precaution, we will be installing this system with the aim of preventing such collisions.

For the peace of mind of society

Material Issues

Assuring Product Quality and Safety

Use of AI and IoT is advancing throughout society, causing demands from the customers to whom we supply products to become ever more sophisticated, diverse, and stringent. As it becomes more important than ever to assure product quality and safety, the JX Nippon Mining & Metals Group is working to further enhance its quality management framework. Accordingly, the Quality Control Department has been established as an independent organization responsible for quality control operations for the entire Group. In addition, a Quality Control Committee that includes top management as members reviews the full range of quality control activities, resulting in a highly comprehensive and effective organizational structure.
Assuring Product Quality and Safety

As society’s use of IoT and AI advances, customers have become more demanding than ever with regard to product safety and quality. In the JX Nippon Mining & Metals Group, we seek to raise quality performance and customer satisfaction by building and operating an organizational structure for the provision of high-quality products, including acquisition of ISO 9001 certification.

1. Grasp the requirements of customers and society correctly in order to offer products and services that customers can trust and that satisfy their needs.
2. Improve and maintain quality in all processes from development, design, and production to delivery, while paying due attention to safety and environmental conservation.
3. Establish a quality management system, carry out continual improvements, and develop human resources.
4. Comply with all pertinent laws and regulations of Japan and other countries, and provide customers and society with accurate information on quality.

Establishment of Quality Management Systems and Their Implementation Based on the PDCA Cycle

The Group has developed quality management systems (QMS) that implements as a means of putting the Basic Quality Policy into practice. The plan-do-check-act (PDCA) cycle is faithfully applied to QMS implementation, as continual improvements are made to achieve better quality. Both domestic and overseas operating sites have obtained ISO 9001 certification, the international standard for quality management systems.

Operational Sites That Have Obtained ISO 9001 Certification

<table>
<thead>
<tr>
<th>Domestic</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Overseas</th>
</tr>
</thead>
</table>

Enhancing Quality Auditing from a Third-Party Viewpoint

The Quality Control Department was established in January 2018 to plan, propose, and execute measures for maintaining and improving quality control throughout the Group, as we seek to enhance our quality management framework.

At the same time, a Quality Control Committee was formed to confirm that the quality management framework is functioning effectively and to share issues.

Development of Human Resources to Provide High-Quality Products and Services

The Group undertakes human resource development to make all employees aware of the need to focus on customers and to encourage employees’ active participation in continual improvement activities.

We believe that quality is the responsibility of all employees, not only in departments that contribute directly to profitability, but in back-office departments as well. We therefore have a dedicated department that provides quality control education based on original training manuals throughout the year for all employees, from new hires to senior management.

Features of Quality Control Education

- An education system enabling training programs to be selected according to employees’ work roles
- Content specially designed to enable use of the quality control methods in actual workplaces
- Employees learn how to determine the true causes of quality problems by logical thinking and take the lead in solving them

Sharing of Quality-Related Information across Operating Sites

Recognizing the high importance of internal communication in implementing the quality management system, we provide opportunities for information sharing among different employee levels and divisions. Information sharing among divisions takes place in twice-yearly quality assurance managers’ meetings, bringing together the people in charge of quality at each operating site. At these meetings, quality assurance managers report on quality-related losses and complaints that have occurred, and describe quality improvement efforts at their sites, enabling this information to be shared throughout the Group.
At a time of heightening awareness of quality control among corporations, the Quality Control Department was formed in the Technology Group with the aim of enhancing the Group’s organizational structure for quality management. The role of the new department is to collaborate and cooperate with related parties in promoting initiatives for solving important quality issues common to the entire Group. To assure customers of quality, we need to ensure that customer demands are being met at each operating site. The Quality Control Department therefore periodically monitors, analyzes, and evaluates the situation at each site, formulating and implementing improvement policies as necessary. To this end, I believe it is important to confirm whether the quality management system at a site is being implemented effectively by actually observing operations and checking records. Whenever possible, I plan for us to visit each site for frank and open talks with local managers and workers on their vision of ideal quality control, aiming to earn trust as a Quality Control Department.

Kazuaki Yoshioka
General Manager,
Quality Control Department,
Technology Group
JX Nippon Mining & Metals Corporation

Each year, we receive awards from customers in recognition of our stable supply of high-quality products, promotion of business continuity planning, and other efforts. In fiscal 2017, we received the following four awards.

From Samsung Electronics, South Korea: Best Contribution Award
From ON Semiconductor, USA: platinum perfect quality Award
From STM Microelectronics, Switzerland: Best Supplier Award 2016
From Global Foundries Fab, Germany: Appreciation Award

At a time of heightening awareness of quality control among corporations, the Quality Control Department was formed in the Technology Group with the aim of enhancing the Group’s organizational structure for quality management. The role of the new department is to collaborate and cooperate with related parties in promoting initiatives for solving important quality issues common to the entire Group. To assure customers of quality, we need to ensure that customer demands are being met at each operating site. The Quality Control Department therefore periodically monitors, analyzes, and evaluates the situation at each site, formulating and implementing improvement policies as necessary. To this end, I believe it is important to confirm whether the quality management system at a site is being implemented effectively by actually observing operations and checking records. Whenever possible, I plan for us to visit each site for frank and open talks with local managers and workers on their vision of ideal quality control, aiming to earn trust as a Quality Control Department.

Kazuaki Yoshioka
General Manager,
Quality Control Department,
Technology Group
JX Nippon Mining & Metals Corporation

For the peace of mind of society

Developing Human Resources

It is essential for the JX Nippon Mining & Metals Group to develop and utilize the employees involved in day-to-day operations if it is to maximize its corporate value. By creating personnel systems that value the diversity of employees working in Japan and abroad, and by enhancing education programs, we are providing a foundation enabling employees to make the most of their abilities.
The JX Nippon Mining & Metals Group believes it is essential to develop human resources who can ensure the future stable acquisition and supply of indispensable nonferrous metal resources and materials. We have therefore begun directing strong efforts at engaging the young, of high school age and below, who will be responsible for carrying on with this mission. A few examples of these efforts are introduced here.

**Summer STEM Challenge 2017**

During the summer break, theIsohara Works, the Hitachi Works, the Kurami Works, and Pan Pacific Copper’s Saganoike Smelter & Refinery and Hibi Smelter held plant tours and experimentation sessions for junior high school students. Engineers active in these factories gave enjoyable presentations to the students about the fascination of copper, a metal without which today’s society would not exist, and about the appeal of science and technology-related occupations.

- **Hitachi Works (measuring pH of solutions)**
- **Isohara Works (instant freezing of flowers using liquid nitrogen)**

**Nikkei Education Challenge**

**Sponsor: Nikkei Inc.**

The Company participated in this event, in which businesspeople from various industries provided real-world lessons for high school students so that they could learn about the current state of Japan’s economy and technology, and experience the dynamism of society. The Company was represented by an instructor from rolled copper foil marketing, who talked on the topic of rolled copper foil, describing the activities of B-to-B companies and the fascination of B-to-B marketing. He conveyed with enthusiasm how sharing the satisfaction of achieving goals with colleagues is the best part of his work.

**Power of Innovation 2018**

**Sponsor: Educa & Quest Inc.**

Power of Innovation is a three-day camp-style project for students from junior high and high schools, and colleges of technology. This year’s event took place from March 21 to 23, 2018, offering a chance for participants to devise solutions to actual problems in society with the cooperation of businesspeople. Participants heard talks on real society, took part in team workshops where they tackled issues for society assigned as their “missions” by co-sponsoring companies, and gave final presentations. The mission assigned by the Company was to solve social issues making use of the power of copper in any way they wished. It was a good opportunity to help the many participants better understand and think about the importance of copper as a nonferrous metal resource.

**Phase 2 Initiatives of the Endowed Unit for Nonferrous Metal Resource Recovery Engineering (JX Metals Endowed Unit)**

In Phase 2 of the JX Metals Endowed Unit, which began in January 2017, public relations efforts touting the appeal of the nonferrous metals field are being directed at the general public, especially young people of high school age and below. (See page 76 for details.)

**Copper PR by JX Nippon Mining & Metals Mascot Character “Coppy the Kappa”**

Copper is a material essential to the convenient life we enjoy today. Yet it receives little attention, as it is generally covered or used inside devices and is therefore not directly visible. In an attempt to make copper more familiar to the younger generation, we conduct PR using the mascot character Coppy the Kappa via pamphlets and a special website. The pamphlets are made available at the Nippon Mining Museum and at the Science Museum in Tokyo’s Kitanomaru Park, as well as being distributed at various events. The website is designed to help young people learn about copper.

**Website for young people:** “Learn about Copper with Coppy the Kappa”

http://www.nmm.jx-group.co.jp/copper/ (in Japanese only)
Examples of Education Programs Implemented in Fiscal 2017
(Training for Young Employees Who Completed University or Graduate School)

**Program** | **Target employee group** | **Details**
--- | --- | ---
First-year language training | Those interested among graduates of university or graduate school in their first year with the Company | About five months of study through language correspondence courses matched to foreign-language level (TOEIC score) for self-development purposes. A language other than English may be chosen as needed.

Second-year overseas training | All graduates of university or graduate school in their second year with the Company | Eight weeks of study at overseas language schools, etc., matched to foreign-language level (TOEIC score) university-level classes in Europe or the U.S., or training in Chinese, Korean, or Spanish at overseas language schools.

Short-term study-abroad language program | Person requiring a certain level of language competence for their work | Four to 12 weeks of study in English, Chinese, Korean, or Spanish at overseas language schools, etc.

Management training | Those interested for graduates of university or graduate school up to their fifth year of employment | Language training suitable work hours for persons desiring to study Chinese, Korean, Spanish, or another language for self-development who have received approval from their manager (two-hour weekly classes, tuition paid by the Company).

Second-year TOEIC training | Those recommended by supervisors for each job category and selected by the Council for Utilization of Human Resources | TOEIC test administered annually.

Study abroad (resumed in fiscal 2017) | | Study at a university or graduate school in or outside Japan—for enhancing work-related knowledge, learning technology and skills, and fostering insight. These courses are divided broadly into the following two types:
- A courses: Aim for an MBA degree to strengthen managerial skills
- B courses: Aim for a master’s or doctoral degree to strengthen expertise

**Overview of the Educational Programs for Global Readiness at JX Nippon Mining & Metals**

The Company has prepared various educational programs for global readiness aimed at developing human resources who can advance its global operations and making the Company more globally minded.
At the Kurami Works, where I am assigned, we have constantly been working at full capacity in recent years because of the many orders for rolled copper products and other products used as materials in smartphones. What is more, the products we manufacture have changed greatly since around 2011, when I joined the company. These rapid changes in my environment made me acutely aware of the risk that I myself might lose sight of what I really needed to do because I was looking at the work in front of me from the narrow standpoint of my own workplace alone. That is why I decided to study at the BBT (Business Breakthrough) University to systematically learn about basic business administration, something I had not yet experienced in my career in science and technology. BBT University is an online school, where classes and discussions with classmates all take place online. There is also a smartphone app that lets you take classes and carry on discussions from your phone. This means you can proceed with the studies at your own pace, wherever or whenever you like, which suits me perfectly.

Classes at the university are not limited to business administration, but cover a wide range including accounting, organizational theory, and liberal arts. Among these are RTDCS (Real Time Online Case Study) classes, where every week we consider what we would do about specific issues if we were the president of an existing company. Thanks to these classes, I am now able to think about my work from the higher perspective of what I would do as a manager or general manager, rather than from my current position, broadening the scope of my thinking as I engage in my work.

Next, I plan to work on my thesis in preparation for my graduation. After graduation, I would also like to study the next technology trends such as AI and machine learning. In the longer term, since the business environment is likely to change even further, I am thinking about studying business administration again to prepare for such shifts, in the hope that this will further deepen the engineering expertise or managerial skills of those responsible for management of the company in the next generation.

Kenji Koko
JX Nippon Mining & Metals Corporation
Currently studying at Colorado School of Mines (joined the Company in fiscal 2004, sent abroad in fiscal 2017)

At the graduate school in the U.S., I am now attending, I am in the Metallurgical and Materials Engineering Program, learning about methods for metal material processing and strengthening. I plan to write a graduate thesis on the topic of developing stronger copper alloys, and am now spending my days conducting related experiments and writing papers.

Before I came abroad to study, my job at the Kurami Works included improving the copper alloy production processes, developing new copper alloys, and dealing with customers. Then I transferred to the Market Development Department in the Functional Materials Division of the Electronic Materials Group at Head Office, making use of my experience at the Kurami Works to expand sales of copper alloys from an engineering standpoint. Maintaining close communication with domestic and overseas customers and with our manufacturing people, I sought to determine the technical issues faced by homework, and studying for tests. In preparation for writing my graduate thesis, I am also busy drawing up a research plan, reading related academic papers, and readying test samples, as I devote all my time to improving my capabilities.

When I graduate and return to the Company, I want to make the most of the systematic knowledge of materials engineering I acquired in the program, as well as my cross-cultural communication abilities, to work with customers in Japan and overseas on timely development of innovative new products.
Providing a Rewarding Work Experience

The JX Nippon Mining & Metals Group endeavors to provide a workplace where employees are able to make the most of their abilities—a workplace full of the vitality that comes from maintaining physical and mental health, which we recognize as a strong advantage for ensuring the Company’s sustainable growth.

Along with implementing appropriate personnel evaluation systems, we seek to improve these systems so as to allow diverse human resources to choose a variety of work styles.

Personnel Systems

The Company has designed personnel evaluation systems consisting mainly of Competency Evaluation, Performance Evaluation, and Self-Statement systems.

Creating Appropriate Personnel Evaluation Systems

The Company has introduced a Competency Evaluation System based on competency models and a Performance Evaluation System centered on management of missions and goals.

In Competency Evaluation, employees are interviewed by their supervisors based on competency items determined by the nature of their work and job grade. The resulting assessment of whether they have the necessary competency is used in deciding promotions.

For Performance Evaluation, employees meet with their supervisors to discuss the extent to which they attained missions and goals agreed on with the supervisor at the beginning of the fiscal year, and the degree of challenge presented by the goals. Their performance is then evaluated, and the results of these evaluations are reflected in employee bonuses. The competency model and performance evaluation items for managerial staff have been restructured so that 50% of the items evaluated relate to personnel management.

By implementing these personnel evaluation systems properly, we seek to improve fairness in the treatment of employees and in the development of their abilities.

Self-Statement System

A Self-Statement System was introduced to help the Company understand the aspirations of individual employees and reflect them in personnel development and elsewhere. Under this system, employees submit this statement on the specified form once a year, looking back on their work and indicating their ambitions, as well as other matters of relevance, such as any reason why they cannot accept job transfers that would involve moving residence and how long that will remain the case.

Initiatives Promoting Diversity

The Group values diversity in both human resources and work style. In compliance with relevant laws and regulations in Japan and overseas, the Group is pursuing initiatives including the continued employment of workers aged 60 and older, hiring of persons with disabilities, and promotion of active participation in the workplace by women. By creating programs enabling childcare and family care leave, and time off for international volunteering, we provide an environment that supports various work styles.

Compliance with the Act on Promotion of Women’s Participation

Steadily increase the number of female employees, and ensure that at least 30% of newly hired university graduates are women, to cultivate female managers early on.

Improve working environments to create workplaces in which all employees including women can do fulfilling work.

In accordance with Japan’s Act on Promotion of Women’s Participation and Advancement in the Workplace, JX Nippon Mining & Metals drew up a plan for the five-year period to fiscal 2020, to develop environments in which even more female employees can take on significant roles and to provide all employees with the motivation to perform to the best of their abilities.

Initiatives for Providing a Rewarding Work Experience

For the peace of mind of society

Material Issues

Providing a Rewarding Work Experience

Targets

- Steadily increase the number of female employees, and ensure that at least 30% of newly hired university graduates are women, to cultivate female managers early on.
- Improve working environments to create workplaces in which all employees including women can do fulfilling work.

In accordance with Japan’s Act on Promotion of Women’s Participation and Advancement in the Workplace, JX Nippon Mining & Metals drew up a plan for the five-year period to fiscal 2020, to develop environments in which even more female employees can take on significant roles and to provide all employees with the motivation to perform to the best of their abilities.

Specific Initiatives

(1) We are seeking to increase the number of women applying for employment at the Company by making use of the corporate website and other means to actively offer information about work opportunities for women. In addition, by offering workplace tours and similar opportunities for female students, we are seeking to secure personnel to work in technical positions, where the rate of female participation is particularly low. In this way, the Company is helping to nurture female specialists in science and technology, whose numbers are currently insufficient throughout Japan. In fiscal 2017, women made up 28% of newly hired university graduates in the Company.

(2) We have introduced new and revised systems aimed at creating workplace environments in which a diverse range of personnel can do fulfilling work, so that all employees including women have the opportunity to perform to the best of their abilities. These include a new system for returning to work following life-event leave, revision of childcare and family care leave systems, and introduction of telecommuting.

Workplaces Where Women Play Significant Roles

As of March 31, 2018, a total of 1,168 female employees were working in the Group worldwide. Of these, approximately 29% occupy managerial positions (supervisor class and above). JX Nippon Mining & Metals employs 259 female employees (including part-time employees), of whom approximately 25% are in managerial roles. There are no gender differences in base pay.
Initiatives for Providing a Rewarding Work Experience

VOICE Comments by an Employee Who Took Childcare Leave

Taking eight months of childcare leave with the understanding of colleagues

As my parents were busy caring for their own parents, I was in a situation where I could not obtain adequate help with childcare from them. I also felt it was important to spend time with our child in the initial period after birth. So I obtained eight months of childcare leave. Every day went by quickly during the leave period, filled with bottle-feeding, diaper-changing, bathing duties, reading picture books, and caring for our child in other ways, as well as doing housework. It took a while to get over the initial nervousness in dealing with an infant, but after about six months I became used to the life of caring for a child, and my wife was also able to relax a bit both physically and mentally. Based on this experience, for people like me who cannot obtain support from their family, I recommend taking at least six months of childcare leave. When you spend time looking after your child, there are many things that don’t go as planned. I believe the experience helps you develop patience and endurance, while learning how to multitask, all of which come in handy at work as well.

When obtaining childcare leave, I consulted with my supervisor at an early stage. To ensure that my work would continue to be carried out smoothly after I went, I drew up a list of points to explain about the facilities I was in charge of maintaining and passed this on to the person substituting for me. Having obtained the understanding and cooperation of my colleagues, I was able to embark on childcare leave free of worries. I am truly grateful for this.

Data Relating to Diversity (JX Nippon Mining & Metals)  

Use of childcare leave program in fiscal 2017

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of employees using program</th>
<th>No. of employees using program in 2017</th>
<th>Usage rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>92</td>
<td>18.4</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>92</td>
<td>100</td>
</tr>
</tbody>
</table>

Retention rate after return from childcare leave (Percentage of those still employed 12 months after return from leave)

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of employees returning to work in 2017</th>
<th>No. of employees still employed 12 months later</th>
<th>Retention rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>92</td>
<td>100</td>
</tr>
</tbody>
</table>

Status of rehiring efforts in fiscal 2017

<table>
<thead>
<tr>
<th>No. of Age-limit Retirees</th>
<th>No. of reemployed</th>
<th>Reemployment rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>66%</td>
</tr>
</tbody>
</table>

Persons with disabilities as a percentage of the workforce in fiscal 2017

<table>
<thead>
<tr>
<th>Gender</th>
<th>No. of employees</th>
<th>Disability (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>6</td>
<td>2.08% (legal requirement is 2.0%)</td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>2.08% (legal requirement is 2.0%)</td>
</tr>
</tbody>
</table>

Maintaining Good Labor-Management Relations

Labor unions have been formed at nearly all Group companies in Japan.

At each Group company, good relations built on mutual trust are maintained between management and employees. At regular meetings between representatives of management and the labor union, management discloses details of the company’s business; while at the Health and Safety Committee meetings, causes of accidents and incidents are analyzed thoroughly. In such ways, labor unions play an important role as partners with management, including by conveying information and gathering views within the organization. Recognizing health and safety as a particularly important theme to be confirmed between management and labor, 90% of Group companies with labor unions include matters relating to health and safety in their labor agreements. When changes are made in the company organization or business activities, adequate time is given to preliminary explanations and discussions before conducting the necessary procedures, in accordance with the labor agreement.

In fiscal 2017, there were no strikes or lockouts in the Group.

Overview of Childcare and Family Care Systems

Enhancing Childcare and Family Care Systems

At JX Nippon Mining & Metals, we are working to energize individuals and organizations, with the aim of strengthening business while adapting to changes in the business climate and making major strides toward the future. Since fiscal 2016, we have revised various personnel systems and taken measures to change awareness, from the two standpoints of strengthening personnel management and development, and creating environments in which a diverse range of personnel can do fulfilling work. We will continue monitoring and studying these systems, making further changes as necessary, and rolling them out flexibly.

One aspect of initiatives for creating environments in which a diverse range of personnel can do fulfilling work is making the working environment one where even employees with commitments such as childcare or family care can make the most of their abilities. To this end, we introduced new or revised systems as described here.

TOPICS Initiatives for Energizing Individuals and Organizations

Enhancing Childcare and Family Care Systems

JX Nippon Mining & Metals Corporation Sustainability Report 2018

Comments by an Employee Using the Childcare Support Programs

Since the time my daughter entered kindergarten, I have been enthusiastic about using the Company’s childcare support programs.

In our household, both of us work, so when regular kindergarten hours are over, our daughter stays in the daycare service offered by the kindergarten, and during summer or other times when the kindergarten is closed, she stays in a privately run temporary daycare center. Every month, we make use of the childcare subsidies program to cover part of the cost of these daycare services. This is especially helpful for the temporary daycare service, which is quite a burden because it costs more than regular daycare. Thanks to such subsidies offered by the Company, a couple like us have the additional option, besides daycare, of sending our child to kindergarten.

To find a daycare center offering temporary daycare, we took advantage of the childcare concierge service. After contacting the service and exchanging information by email, we received suggestions for a number of daycare centers that met our wishes. Although we did the follow-up inquiries and applications ourselves, our burden as a working couple with little free time between us was eased considerably by having the search for a daycare center with temporary daycare performed on our behalf. We are now using temporary daycare at one of the daycare centers first suggested to us by the childcare concierge service.

As time passes and our daughter grows older, there will no doubt be various new concerns and uncertainties, but by making effective use of the childcare support programs offered by the Company, we as a couple hope to continue balancing our parenting responsibilities with our work.
Comment from Poppins Corporation, a Provider of Nursery and Early Child Education Services

Mitsuhiro Okubo
Senior Engineer, Intellectual Property Department
Technology Group
JX Nippon Mining & Metals Corporation

JX Nippon Mining & Metals has had a corporate contract with us since the last fiscal year, enabling its employees to make use of our nanny (educational babysitter) services at low rates. I am happy that our nursery is able to help the Company’s employees balance the needs of work and parenting when, for example, they are going to be late picking up their child at the daycare service, or the child comes down with a sudden fever. In addition to handling these unexpected situations, our nannies at times act as home tutors or fix meals for the children.

We also provide the childcare concierge service, for help in finding a daycare center or for consultations on childcare in general. The key to getting into a daycare center is, above all, being quick to act and gathering plenty of information. Since it is hard to search for a daycare center while busy with work and parental responsibilities, our childcare concierge provides services personalized to each individual, making suggestions and taking care of scheduling. We also offer consultations on various concerns about childcare after returning to the workplace, such as crying at night, the “terrible twos,” entrance exams, kindergarten, and after-school care. I hope that all employees, whether male or female, will feel free to make use of this service.

Lately, the number of working women is on the increase, and thanks in part to the Act on Promotion of Women’s Participation, the number of companies offering support for work-life balance is gradually increasing as well. Balancing work and parenting is not only an issue for women, but also an issue of great relevance to males as their partners, and to their wider families. We at Poppins are ready to do all we can to further support the needs of the Company’s employees, with services closely attuned to their concerns.

Introduction of Telecommuting

In January 2018, we began offering the option of telecommuting, as an initiative for creating environments in which a diverse range of personnel can do fulfilling work.

By making use of this program, employees can cut their commuting time and reduce the physical burden of commuting, while acquiring more time for childcare or family care, for themselves, or to spend with their families. The program is also expected to raise productivity by, for example, enabling telecommuters to concentrate undisturbed on tasks such as creating documents, and by standardizing tasks in the workplace and promoting paperless office work. In addition, telecommuting demands the ability to pre-plan work and exercise self-management more effectively than ever before.

In administrating this program, both telecommuters and their colleagues in each workplace are required to understand the importance of making sufficient advance arrangements with colleagues, and of ensuring proper communication through contact and reporting during the use of the program.

Program Overview

Eligibility

Employees and others with at least one year of service, who have obtained the approval of their supervisor

Hours

Employees must work five days a week, with the same starting and ending times as for regular work at the workplace.

Telecommuting method

Remote operation of the employee’s workplace PC from a home PC

As we have a child in elementary school and both my wife and I work, our child normally goes to a private after-school care service when regular school hours are over. Unlike a daycare service, however, after-school care service hours are short, especially during summer or other long breaks, even though children in the lower grades cannot be left alone at home.

Just when we were fretting about what to do during these long breaks, the telecommuting program started up. Thinking I would be able to work without leaving our child alone at home, I obtained the understanding of my workplace supervisor and colleagues, and began using the telecommuting program.

While I was initially concerned about whether I could get work done at home, when I actually tried it out, remotely operating my office PC, I was surprised at how smoothly things went. My concentration started up. Thinking I would be able to work without leaving our child alone at home, I obtained the understanding of my workplace supervisor and colleagues, and began using the telecommuting program.

3. No. of employees ending employment (April 1, 2017 to March 31, 2018)

2. No. of newly hired employees (April 1, 2017 to March 31, 2018)
Material Issues
Promoting Community Involvement and Development

Social Contribution Activities

For fiscal 2017, the Group adopted a corporate citizenship policy of carrying out social contribution activities geared to the nature of the Group’s businesses, undertaking social contribution activities and interchanges rooted in the local community at each of our operating sites in Japan and overseas. These activities are planned and assessed by the Citizenship Committee, an organization under the CSR Committee, in meetings every six months.

Social Contribution Activities in Japan

All the Group operating sites in Japan actively engage in social contribution activities in their respective communities.

Cleanup Campaigns

**JX Nippon Tsuruga Recycle**

*Participating in Cleanup in the Company Vicinity and in Local Volunteer Activities*

In support of the Operation Cleanup Fukui initiative promoted throughout Fukui Prefecture, the company engages in cleanup activities in the area around the company premises. It also plays an active role in local volunteer activities, such as the cleanup campaign at the Kei no Matsubara beach, a nationally designated place of scenic beauty (June: beach cleaning, November: clearing fallen leaves in the pine grove); cleanup at Mikata Goko lakes (twice during the year); and waterway management at the Nakakorin Wetlands (once during the year).

**Isohara Works**

*Improving the Appearance of the Environment around the Plant*

The Isohara Works organizes after-hours cleanup sessions around the plant as part of its regular activities to improve the appearance of the local environment. A total of 250 persons from each of the departments participated during fiscal 2017, conducting cleanup activities along nearby sidewalks and around the Kitaibaraki civic baseball field, among other places.

**Kurumi Works**

*Participation in Sagami River Cleanup Campaign*

The town of Samukawa (in Kouzu-gun, Kanagawa Prefecture) organized a Sagami River Cleanup Campaign aimed at furthering understanding of community contributions and environmental issues. The Kurumi Works provided 104 participants, including employees and their family members, helping to promote communication between the company and the local community.

For the peace of mind of society

Educational activities and Plant Tours

**Hitachi Works**

*Exhibit at the 2017 Kogakusai Festival in Hitachi Campus*

At this event, held on the Hitachi Campus of the College of Engineering of Ibaraki University, the HMC Department of the Hitachi Works presented a booth display on the recycling and environmental services business. Along with the exhibits, a quiz called the “Doctor Copper Aptitude Test” was provided, enabling many visitors to have fun as they learned about recycling and copper.

**JX Nippon Exploration and Development**

*Cooperation with Outside Institution for Learning and Training*

In July 2017, the company cooperated in offering the Fiscal 2017 Training Course on Mining Development sponsored by the International Institute for Mining Technology. Held for the 10th time, this course seeks to foster and improve capabilities for comprehensively promoting mineral resources development. Undergoing the training this time were 27 young employees of numerous metals companies and trading companies. The company was responsible for teaching about the role of boring in metal resource exploration. The classroom session was followed up by a visit to the company’s Odate site to see actual boring equipment.

Then in September, the company cooperated in practical training at the Odate site of 25 students from the Faculty of International Resource Sciences of Akita University. The site general manager explained the company’s business, the workings of a boring machine, and how rock core samples are minced using the wireline method, among other topics, while giving the participants hands-on experience at the facility.

**JX Nippon Mikkaichi Recycle**

*Cooperation in Student Training at a Smelting and Refining Site*

In October 2017, the company cooperated in this training session as an event sponsored by the Kansai Branch of the Mining and Materials Processing Institute of Japan. A group of 36 persons, mainly professors and students from Kyoto University, visited the company, where they observed the processes for recycling automobile shredder dust in a gasification melting furnace. They also listened to presentations by young engineering staff on the company’s involvement in recycling and environmental services.
Social Contribution Activities

Events

Summer Festivals
Each year the Group plans and puts on summer festivals, inviting families of employees as well as residents of surrounding communities. The festivities are enlivened by refreshment stands run by employees, lotteries, and local children playing instruments and dancing. Some of the festivals include traditional arts and fireworks shows. For the local residents, these events have become a much-anticipated summer tradition.

Sports Promotion

Hibi Smelter of Pan Pacific Copper

Baseball Classes at Kindergartens and Nursery Schools
Since fiscal 2015, the Hibi Smelter’s baseball team has been holding baseball classes at local kindergartens and nursery schools as one of its volunteer activities. In fiscal 2017, having received requests from seven schools, more than in other years, the team hosted classes in which the participants experienced the fun of baseball through bat throwing practice and intramural games.

Kurami Works

Sponsorship of Youth Baseball Tournaments: the “JX Nippon Mining & Metals Cup”
In fiscal 2017, as a corporate citizenship activity and also to support the sound development of youth, the Kurami Works participated as sponsor in two baseball tournaments in the town of Samukawa, where the plant is located. In the spring, by the schoolchildren's division of the Samukawa Baseball Association, the tournaments were dubbed the “JX Nippon Mining & Metals Cup.”

Donations to Local Communities

The Group donates to local communities for many different causes, including reforestation around closed mines, academic assistance to universities and other research institutions, and funding for events put on by local organizations. The total donations of the Group in fiscal 2017 were ¥0.3 billion* (¥0.11 billion in Japan and ¥0.19 billion outside of Japan).

* The amount of donations by overseas Group companies is converted to yen using the exchange rates at the end of fiscal 2017.

Social Contribution Activities outside Japan

Activities at the Caserones Copper Mine

Support with Improving Crop Irrigation Techniques
MLCC took part in a project to help farmers in the Copiapó Valley improve their irrigation techniques for securing precious water resources, and provided funding assistance. This project, which began in 2013, has been a major success, helping to reduce water resource use by 10% while maintaining crop quality and not impacting yields.

Support for Acquiring Specialized Skills
In January 2018, MLCC provided on-site training aimed at developing industrial machinery maintenance technicians to 20 Los Lunes High School students at the Caserones Copper Mine, and issued completion certificates to the trainees taking part. MLCC cooperates in this and other programs that will help young people living around the city of Tierra Amarilla find employment in large mines or agricultural companies locally.

Support for Temporary Citizen Registration Office in the Caserones Vicinity
MLCC worked with the citizen registration office in setting up a temporary local office to cooperate in distribution of identification cards to residents of the area around the Caserones Copper Mine. This initiative targeted residents of the Tierra Amarilla district and surrounding areas who face difficulty in traveling all the way to central Copiapó City for the registration procedure. Identification cards were created and distributed to more than 500 persons free of charge.

Provision of Artifacts for a New Exhibit Space in the Regional Museum of Atacama
In January 2018, MLCC donated 164 artifacts to the Regional Museum of Atacama. These artifacts had been unearthed in developing the Caserones Copper Mine. The items donated by MLCC make up around 20% of a newly built exhibit space, playing an important role in informing people about the history of the Atacama region.

Respect for the Life of Local Residents and Protection of their Human Rights
MLCC applies a basic three-point policy for supporting local communities: respect for life, respect for the community and environment, and respect for current law. In keeping with this policy, from the project launch in 2007, the company began holding explanatory meetings and engaging in dialog with the Collas, the indigenous people living in the area around the mine site, endeavoring to build up trust and protect their rights. There have been no cases since that time of violations of the rights of local residents.

Other Activities

JX Nippon Mining & Metals Philippines, Inc. (Philippines)
Participation in Bulacan City’s project to plant mangroves around the Laguna de Bay lake
JX Nippon Mining & Metals Korea Co., Ltd. (South Korea)
Support for volunteer activities conducted by a group of Samsung Electronics subcontractors, including providing lunch to low-income households, and visiting orphanages and shelters
JX Nippon Mining & Metals (Philippines) Co., Ltd. (Philippines)
Donations to nearby elementary schools (supporting children in low-income families with living and education expenses)
Pan Pacific Copper Exploration Peru, S.A.C. (Peru)
Compañía Minera Casquiri S.A. (Peru)
Donations to areas affected by torrential rain and mudslides in Peru.
Commitment to Our Suppliers

The Group is committed to fulfilling its corporate social responsibilities throughout the entire supply chain. Based on the JX Nippon Mining & Metals Group Basic Procurement Policy, we strive to build relationships of cooperation and trust with suppliers by conducting transparent and fair transactions with them.

Partnering with Suppliers

Based on the JX To Group Philosophy and our Code of Conduct, we engage in procurement activities based on the below policy as part of our CSR initiatives.

JX Nippon Mining & Metals Group Basic Procurement Policy

1. Comply with laws, regulations, and rules and engage in fair transactions.
   - Respect the letter and spirit of relevant laws and social norms in executing business operations.
   - Conduct purchasing activities based on fair evaluations.
   - Maintain appropriate relationships with business partners based on the highest ethical values.

2. Protect intellectual property rights.
   - Strictly control personal information obtained in the course of procurement activities.
   - Do not illegally obtain or illegally use intellectual property, including the patents, utility models, designs, and trademarks of third parties, and do not infringe such rights.

3. Build relationships with business partners based on mutual understanding and trust.
   - Provide business partners with high reliability and satisfaction through accurate, fast, and highly transparent activities.
   - Endeavor to achieve robust communication with business partners and consistently promote creativity and innovation through advanced ideas.
   - Contribute to the development of a sustainable society by promoting the purchase of environmentally friendly materials and machinery.

4. Follow the below principles regarding conflict minerals.
   - Do not engage in raw materials procurement that contributes to illegal activities in conflict-affected regions or to human rights infringements through such illegal activities.
   - Respect the guidance of the Organisation for Economic Co-operation and Development related to raw materials procurement from conflict-affected areas, and control supply chains in an appropriate manner.

Confronting the Problem of Conflict Minerals

The Group's Basic Procurement Policy includes a clause on avoidance of conflict minerals, and we have established and operate management systems to appropriately address this issue.

What Are Conflict Minerals?

“Conflict minerals” is the general term for minerals that are mined (illegally, in most cases) in conflict-affected regions, providing a source of funds for local armed groups. The use of these minerals may lead to the prolonging of conflicts and the expansion of human rights abuses and dehumanizing acts.

Global Moves to Impose Trade Restrictions

Global moves to restrict trade of conflict minerals began in the late 1990s, and today various organizations have devised rules and programs. In 2011, the Organisation for Economic Co-operation and Development established the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, advising corporations and others to manage their own operations so as to avoid involvement in the trade of conflict minerals. In the United States, from 2013 the Dodd–Frank Wall Street Reform and Consumer Protection Act obligated companies listed on the U.S. stock exchanges to submit reports on their usage of specific conflict minerals (tin, tantalum, tungsten, and gold) to the Securities and Exchange Commission. The aim of such measures is to stop companies from using conflict minerals through information disclosure and social pressure. The European Union and other organizations are moving to introduce a conflict minerals management and certification system.

Promotion of Green Purchasing

The JX Nippon Mining & Metals Group has drawn up the Green Purchasing Policy, which dictates that the reduction of environmental and social impacts is taken into account when making decisions on purchasing materials and equipment necessary to its business operations. Based on this policy, we have also drawn up Green Purchasing Guidelines setting specific requirements for choosing suppliers.

In addition, the Group periodically conducts green purchasing surveys of suppliers, which include items regarding their use of banned substances in the manufacturing process, the presence of banned substances in supplied products, and procurement from companies with human rights problems. In fiscal 2017, the surveys were conducted from January to December 2017, covering 449 suppliers that account for 95% of the value of the items purchased and accepted by the Company, as well as JX Nippon Environmental Services and Pan Pacific Copper. Responses were received from 435 suppliers, for a response rate of 98.68%. Survey results are reflected in supplier reviews as applicable.

Green Purchasing Policy

We pursue green purchasing initiatives to contribute to the formation of a recycling-oriented society, prevention of global warming, and promotion of a “reduce, reuse, and recycle” approach. This policy applies to all materials and equipment to be purchased. When items have similar functions, prices, and delivery dates, we evaluate their potential to reduce environmental impact based on mandatory and voluntary conditions, and purchase the item with superior environmental performance.

Group Response to the Issue

In line with these global trends, industry organizations relevant to the Group (including the LBMA1 and RBA) have established monitoring programs for eliminating conflict minerals. These programs request that companies cooperate with surveys and undergo external audits by an independent organization. Pan Pacific Copper, a producer of gold bullion, has established and operates a management system for supply chain due diligence that calls for the following actions to be taken:

- Performing supply chain due diligence before purchasing mineral raw materials (confirming the place of origin of the materials, assessing risks, confirming materials after delivery, confirming distribution routes, preserving relevant documents, etc.).
- Notifying suppliers of the policy on exclusion of conflict minerals.
- Conducting in-house education on supply chain due diligence and its background.
- Conducting internal audits and undergoing external audits.

The implementation status of supply chain due diligence is audited by an independent organization specified by the LBMA, and the results are reported to the LBMA. As a result of following these procedures, the gold bullion produced at Pan Pacific Copper’s Saganosoki Smelter & Refinery is included on the LBMA’s Good Delivery List. At the same time, the Saganosoki Smelter & Refinery has been included on the RMAP*2 Conf ormant Smelters list compiled by the RBA and GeSI*2—recognition that it is taking proper measures to exclude conflict minerals. More recently, in September 2017, the LBMA announced its Responsible Silver Guidance, asking for proper due diligence in the silver supply chain. In response, the JX Nippon Mining & Metals Group has determined to follow this Guidance, setting rules and taking other steps to achieve conformance in fiscal 2018.

1 LBMA: London Bullion Market Association. An industry association composed of financial institutions and others that deal in gold bullion. Inclusion on this association’s Good Delivery List is viewed as a guarantee of high-quality and reliability.

2 RBA and GeSI together created the Responsible Minerals Assurance Process (RMAP)*2 certification program based on their relationship with the electronic and communications equipment industries, where the risk of conflict mineral use is exceptionally high.

Certificate from the LBMA

Certificate from the LBMA