Manufacturing Sites With Third-Party QMS Certification

[Domestic]

Isohara Works; Kitaibaraki Precision Co., Ltd.; Kurami Works; JX Nippon Coil Center Co., Ltd. (Kurami Office, Kawasaki Office); Hitachi Works (Copper Foil Dept.); Ichinoseki Foil Manufacturing Co., Ltd.; JX Metal Smelting Co., Ltd. (Saganoseki Smelter & Refinery, Hitachi Works); Japan Copper Casting Co., Ltd. (Saganoseki Works); JX Metals Trading Co., Ltd. (Takatsuki Plant); JX Metals Precision Technology Co., Ltd. (Esashi Works, Nasu Works, Kakegawa Works); TANIOBIS Japan Co., Ltd. (Headquarters, Mito Plant); and Toho Titanium Co., Ltd. (Headquarters/Chigasaki Plant, Hitachi Plant, Yahata Plant, Wakamatsu Plant, Kurobe Plant)

[Overseas]

Nippon Mining & Metals (Suzhou) Co., Ltd.; Nikko Fuji Precision (Wuxi) Co., Ltd.; JX Nippon Mining & Metals Dongguan Co., Ltd.; Nikko Metals Taiwan Co., Ltd. (Longtan Works, Kuanyin Works); JX Nippon Mining & Metals Philippines, Inc.; JX Nippon Mining & Metals USA, Inc.; JX Nippon Mining & Metals Korea Co., Ltd.; TANIOBIS GmbH (Goslar); TANIOBIS Smelting GmbH & Co. KG (Laufenburg); TANIOBIS Co., Ltd. (Map Ta Phut); Materials Service Complex Malaysia Sdn. Bhd.; Materials Service Complex Coil Center (Thailand) Co., Ltd.; and SCM Minera Lumina Copper Chile

Quality Control Department Activities

The Quality Control Department is in charge of planning, proposal, promotion, and oversight for enhancement of Group-wide quality control. This department is also engaged in clarifying Group-wide QMS requirements, improving the effectiveness of internal quality audits, and supporting quality improvement activities and quality control education at manufacturing sites.

In fiscal 2021, we continued to remotely conduct internal quality audits at 13 sites in Japan and overseas, despite restrictions imposed by the COVID-19 pandemic.

Liability Claims

In fiscal 2021, there were no claims pursued under the Product Liability Act due to personal or property damage caused by defects in products made by Group companies.

Providing Information on Products and Services

In accordance with the Basic Quality Policy, the Group provides customers with information on its products and services through product specifications and Safety Data Sheets (SDS)*. For example, sulfuric acid sold by Group companies is designated as a deleterious substance under Japan's Poisonous and Deleterious Substances Control Act. By limiting our business partners to sellers of poisonous or deleterious substances and issuing SDSs, we strive to prevent serious negative effects on the occupational health and safety for our customers and their employees after delivery.

* A Safety Data Sheet (or SDS) is a document that provides information on chemical substances, product names, suppliers, hazards, safety precautions, and emergency responses with regard to a given chemical product.

Quality Assurance Initiatives With Suppliers

Cooperation with suppliers is essential for thorough quality assurance. The Group respond to its suppliers based on quality management standards and quality requirements. Our efforts include conducting regular evaluations and quality audits, reducing quality risks, and improving the quality level of our suppliers. We also conduct Supplier Surveys to promote mutual understanding with our suppliers.

Promotion of Personnel Quality Education

The Group ensures that all employees are thoroughly familiar with the Basic Quality Policy through quality control education. In addition, to we also provide quality control education to all employees to improve their problem identification and resolution capability, helping them to logically infer the root cause of a problem and independently resolve it and improve the quality of their work. These training programs, which range from introductory to advanced courses according to the level of the participants, have become an established part of employee training.

Starting in fiscal 2020, the Company's Quality Control Department encourages internal quality auditors to acquire qualifications such as QMS Auditor and is introducing retrospective training from outside instructors in order to improve their competence.

Quality control education (Headquarters)

Addressing the ICMM's Performance Expectations (PEs)

ICMM, of which JX Nippon Mining & Metals is a member, requires its member companies to conduct PEs*, a program to verify each company's progress in achieving the roles and results expected of the mining and metals industry. In response, the Group conducted a self-assessment of its corporate office and seven sites. The following is a summary of the assessment results.

Of the sites for which self-assessment was conducted, we plan to undergo third-party validation at the Saganoseki Smelter & Refinery and Hitachi Works, both of JX Metals Smelting Co., Ltd., as well as the Caserones Copper Mine. This is due to their high quantitative importance in terms of elements such a business scale and production volume.

* Performance Expectations (PEs) is a program to evaluate companies' achievement of requirements in the ICMM's Mining Principles and Position Statements. Self-assessments and third-party validations are required for subject sites. Self-assessments are scored on a three-point scale: Meets, Partially Meets, and Does not Meet

Self-Assessment Analysis

Site	Results				Total
	Meets*1	Partially Meets*1	Does not meet*1	Not applicable*1	
Corporate	13	15	1*2	0	29
JX Metals Smelting Co., Ltd. (Saganoseki Smelter & Refinery)	21	3	0	7	31
JX Metals Smelting Co., Ltd. (Hitachi Works)	21	3	0	7	31
TANIOBIS (Goslar)	21	3	0	7	31
TANIOBIS (Laufenburg)	21	3	0	7	31
TANIOBIS (Thailand)	21	3	0	7	31
Caserones Copper Mine	27	3	0	1	31
Kasuga Mine	22	3	0	6	31

*1 Meets: All the criteria indicated for each PE item in the Validation Guidance of ICMM have been met and there is sufficient evidence to demonstrate that these have been met
Partially meets: Some of the criteria of the Validation Guidance have been met, or there is some insufficient evidence
Does not meet: The criteria have not been met, or there is no evidence
Not applicable: Not applicable to Validation Guidance criteria
*2 This is due to no Group-wide policy prohibiting exploration or development of new mines in World Heritage areas. We will consider the possibility of establishing such a policy going forward.

Mass Balance Table for the Group (Fiscal 2021)

INPUT

Raw Materials ☑

Primary raw materials

Domestic operating sites	1,378 kt
Overseas operating sites	19 kt
Total	1,397 kt

Recycled raw materials

Domestic operating sites	164 kt
Overseas operating sites	13 kt
Total	178 kt

Energy ☑

Fuel

Domestic operating sites	2,728 TJ
Overseas operating sites	2,290 TJ
Total	5,018 TJ

Electricity*

Domestic operating sites	11,804 TJ
Overseas operating sites	9,668 TJ
Total	21,472 TJ

* Includes thermal energy (consuming steam, hot water, and cold water) supplied by third parties

Water Resources ☑

Fresh water

Domestic operating sites	17.7 million cubic meters
Overseas operating sites	9.9 million cubic meters
Total	27.6 million cubic meters

Seawater

Domestic operating sites	33.4 million cubic meters
Overseas operating sites	— million cubic meters
Total	33.4 million cubic meters

JX Nippon Mining & Metals Group

OUTPUT

Principal Products ☑

Copper concentrate	311 kt
Electrolytic copper	383 kt
Gold	35 t
Silver	320 t
Platinum	515 kg
Palladium	2,301 kg
Other metals (selenium, tellurium)	339 t
Electro-deposited and rolled copper foil	12 kt
Copper alloy, special steel strips, etc.	33 kt
Titanium sponge	20 kt
Sulfuric acid (by-product)	1,047 kt

Emissions

CO_2 ☑

Total of domestic operating sites

Scope1	383 kt
Scope2	282 kt

Total of overseas operating sites

Scope1	155 kt
Scope2	73 kt
Total	892 kt

Chemical substances (release and transfer) ☑

Total of domestic operating sites: 0.42 kt

Sulphur oxides ☑

Domestic operating sites: 4.4 kt
Overseas operating sites: 0.1 kt
Total: 4.5 kt

Final disposal of waste materials ☑

Domestic operating sites: 8.7 kt
Overseas operating sites: 45.7 kt
Total: 54.4 kt

Nitrogen oxides ☑

Domestic operating sites: 0.3 kt
Overseas operating sites: 0.0 kt
Total: 0.3 kt

Wastewater ☑

Domestic operating sites: 52.5 million cubic meters
Overseas operating sites: 1.1 million cubic meters
Total: 53.6 million cubic meters

Environmental Management

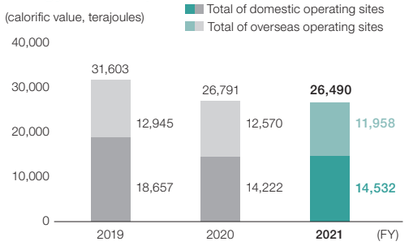
Operating Sites That Have Obtained ISO 14001 Certification (as of March 31, 2022)

Domestic Operating Sites: 29	Overseas Operating Sites: 12
Hitachi Works of JX Nippon Mining & Metals Corporation (including HMC Manufacturing Department, Technology Development Center, Hitachi Seido Works of JX Metals Smelting Co., Ltd. and JX Nippon Environmental Services Co., Ltd.) Copper Foil Dept. of JX Nippon Mining & Metals Corporation (including Hitachi Works of JX Nippon Foundry Co., Ltd. and Ichinoseki Foil Manufacturing Co., Ltd.) Isohara Works of JX Nippon Mining & Metals Corporation Kurami Works of JX Nippon Mining & Metals Corporation (including JX Nippon Coil Center Co., Ltd. and the Kurami Office of JX Metals Trading Co., Ltd.) Saganoseki Smelter & Refinery of JX Metals Smelting Co., Ltd. (including Japan Copper Casting Co., Ltd., and JX Metals Smelting Logitech Co., Ltd.) JX Nippon Tomakomai Chemical Co., Ltd. JX Nippon Mikkaichi Recycle Co., Ltd. Chigasaki Plant of Toho Titanium Co., Ltd. (including its Kurobe Plant and Wakamatsu Plant and Toho Technical Service Co., Ltd.) JX Metals Precision Technology Co., Ltd. (Esashi Works, Tatebayashi Works, Nasu Works, and Kakegawa Works) Amagasaki Office of JX Metals Trading Co., Ltd. (including Takatsuki Plant) Shirakawa Plant of JX Nippon Takasho Co., Ltd. Tsukuba Factory of Furuuchi Chemical Corporation	JX Nippon Mining & Metals Philippines, Inc. JX Nippon Mining & Metals USA, Inc. Materials Service Complex Malaysia Sdn. Bhd. JX Nippon Mining & Metals Korea Co., Ltd. Nikko Fuji Precision (Wuxi) Co., Ltd. Longtan Works of Nikko Metals Taiwan Co., Ltd. Nippon Mining & Metals (Suzhou) Co., Ltd. JX Nippon Mining & Metals Dongguan Co., Ltd. TANIOBIS GmbH(includes TANIOBIS Smelting GmbH & Co. KG, TANIOBIS Japan Co., Ltd., and TANIOBIS Co., Ltd.)

Energy

Energy Consumption ☑

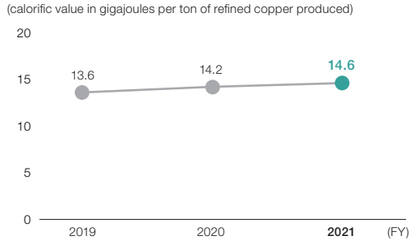
(calorific value, terajoules)



* Energy consumption is calculated by applying the calorific value conversion coefficients for fuel and electricity as stipulated in the Act on the Rational Use of Energy (Energy Conservation Act). (9.97 MJ/kWh or 9.28 MJ/kWh is applied for purchased electricity)

Energy Consumption Intensity at Smelters and Refineries (Fuel and Electricity) ☑

(calorific value in gigajoules per ton of refined copper produced)

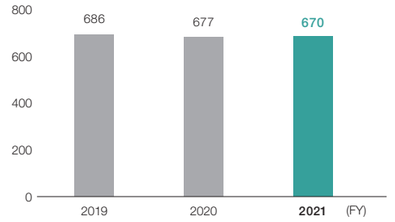


Breakdown by Fuel Type

	Domestic operating sites	Overseas operating sites
Kerosene (kL)	143	—
Light oil (kL)	2,725	52,663
Class A heavy oil (kL)	9,755	1,003
Class B and C heavy oil (kL)	14,492	1,972
Reclaimed oil (kL)	2,558	—
LPG/Butane (t)	5,399	7
LNG (t)	4,664	843
Coke (t)	3,146	—
Petroleum coke (t)	2,558	—
City gas (thousand cubic meters)	18,343	2,980

Energy Consumption in Logistics Stages (Domestic) ☑

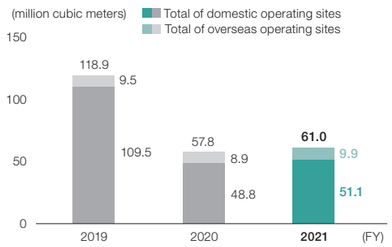
(calorific value, terajoules)



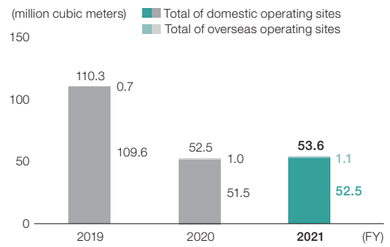
* Applicable to specified consigners as defined in the Act on the Rational Use of Energy. Four Group companies fall under this definition: JX Nippon Mining & Metals Corporation, JX Metals Smelting Co., Ltd., Kasuga Mines Co., Ltd., and Pan Pacific Copper Co., Ltd.

Water Resources

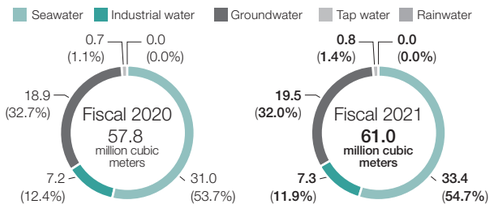
Water Usage*1



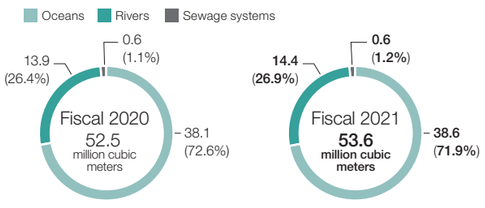
Water Discharge Volume*2



Total Water Usage*1



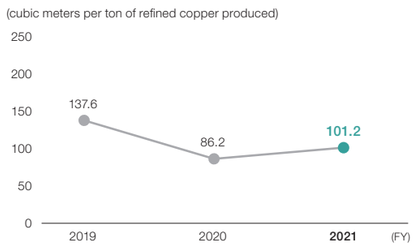
Total Water Discharge*2



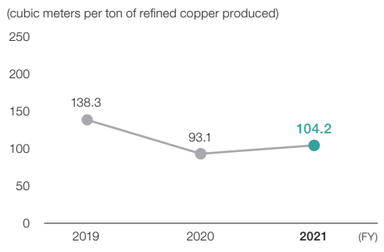
*1 Seawater usage at the Saganoseki Smelter & Refinery of JX Metals Smelting Co., Ltd. is calculated based on pumping capacity.
Freshwater usage at the Saganoseki Smelter & Refinery of JX Metals Smelting Co., Ltd. and water usage at other operating sites are based on flowmeter readings or on invoices from the site's respective water utility.

*2 The volume of water discharged into public waters (oceans and rivers) at each operating site represents the following: an amount calculated based on drainage weirs (Hitachi Works, Isohara Works, JX Nippon Tomakomai Chemical Co., Ltd., and JX Nippon Mikkaichi Recycle Co., Ltd.); an amount obtained by multiplying groundwater usage by a fixed rate (Kurami Works, Toho Titanium Co., Ltd.'s Chigasaki Plant); an amount from invoices (Toho Titanium Co., Ltd.'s Yahata Plant and Kurobe Plant); or an amount based on flowmeter readings (other operating sites). The volume of water discharged into the sewage system at each operating site represents the following: an amount calculated based on daily water discharge (TANIOBIS Co., Ltd.); or an amount based on flowmeter readings or on invoices from the site's respective sewage utility for other operating sites.

Water Usage Intensity at Smelters and Refineries

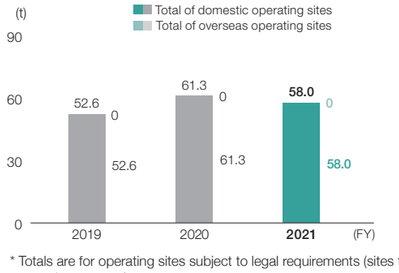


Water Discharge Intensity at Smelters and Refineries



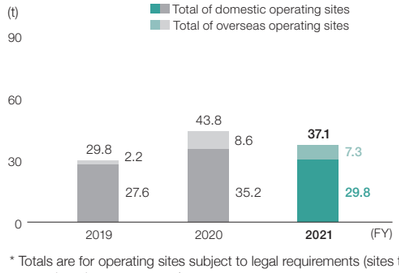
Water Pollutants

COD Load



* Totals are for operating sites subject to legal requirements (sites that discharge water into oceans).

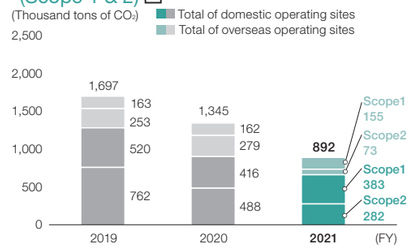
BOD Load



* Totals are for operating sites subject to legal requirements (sites that discharge water into rivers or streams).

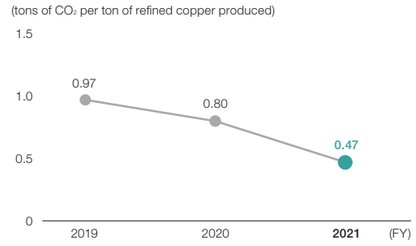
Climate Change

CO_2 Emissions From the Entire JX NMM Group (Scope 1 & 2)

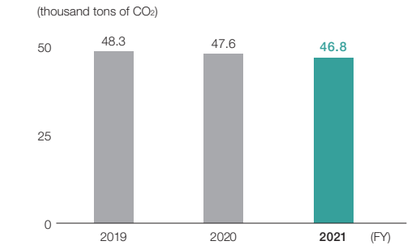


* Scope 1 emissions are those from energy consumption (fuel), emissions from incineration of waste materials (waste oil, waste plastic, sludge, waste wood), and emissions from reducing agents, neutralizing agents, graphite electrodes, and recycled materials, converted to equivalent CO_2.
* Scope 2 emissions are those from electricity consumption converted to equivalent CO_2. Emissions from electricity consumption include those from thermal energy (consuming steam, hot water, cold water) supplied by third parties. The emission factors applied for Scope 2 calculation are as follows for domestic and overseas Group operating sites, respectively.
Domestic: The latest adjusted emission factors per electric power utility published by the Ministry of the Environment and the Ministry of Economy, Trade and Industry are applied
Overseas: Emission factors published by local power companies, national governments, or country-specific emission factors published in the IEA Emission Factors 2021, issued by the International Energy Agency (IEA), are applied

CO_2 Emission Intensity at Smelters and Refineries



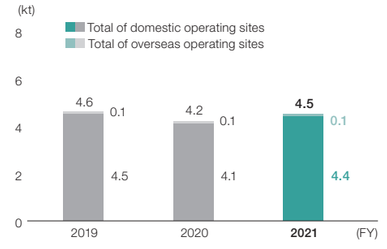
CO_2 Emissions in Logistics Stages



* Applicable to specified consigners as defined in the Act on the Rational Use of Energy. Four Group companies fall under this definition: JX Nippon Mining & Metals Corporation, JX Metals Smelting Co., Ltd., Kasuga Mines Co., Ltd., and Pan Pacific Copper Co., Ltd.

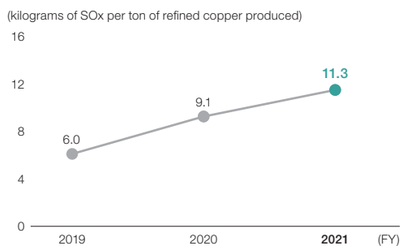
Air Pollutants

SOx Emissions

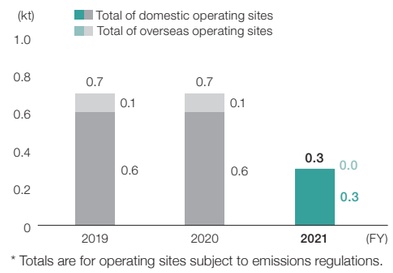


* Totals are for operating sites subject to emissions regulations.

SOx Emission Intensity at Smelters and Refineries

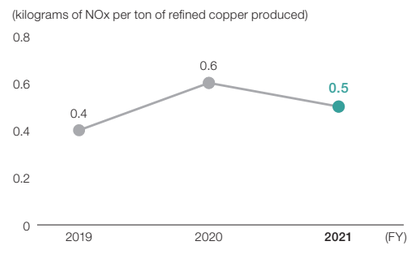


NOx Emissions



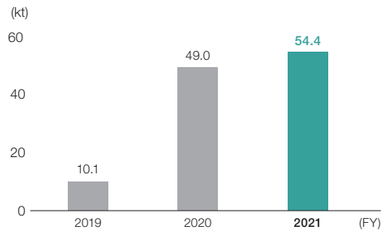
* Totals are for operating sites subject to emissions regulations.

NOx Emission Intensity at Smelters and Refineries



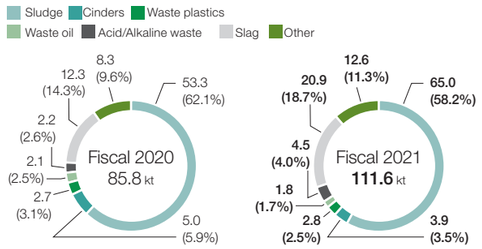
Waste Materials and By-Products

Volume of Final Disposal of Waste



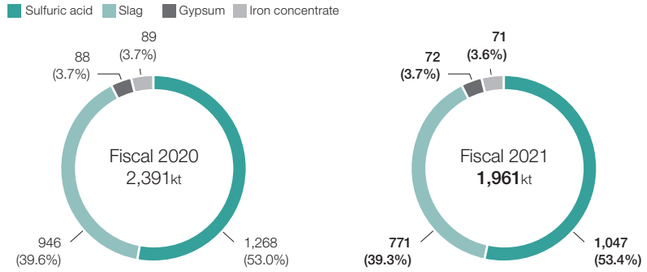
* These do not include the approximately 27.0 million tons of slag from the Caserones Copper Mine.
* The volume of final disposal of waste has increased rapidly due to the inclusion of Toho Titanium Co., Ltd.'s offshore landfill volume and final disposal volume of the TANIOBIS Group in calculations, as of fiscal 2020.

Total Discharge Volume by Type of Waste Materials



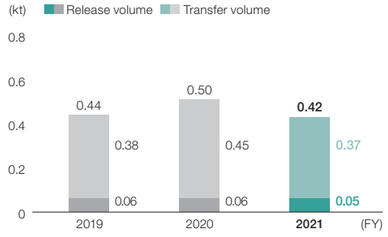
* Total emissions increased because slag, which had been reused as valuable resources, is now treated as waste.

By-Product Production

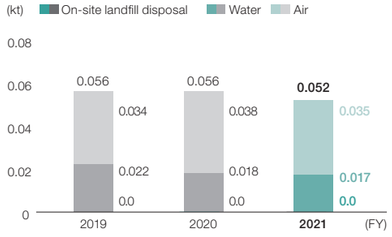


Chemical Substances

Volumes of Release and Transfer of PRTR Substances



Breakdown of Release Volumes of PRTR Substances



Volumes of Release and Transfer of Major PRTR Substances in Fiscal 2021

(t)

No.	Cabinet order no.	Chemical substance	Release volume			Transfer volume	
			Air	Water	On-site landfill disposal	Sewage systems	Waste materials
1	31	Antimony and its compounds	0.1	0.5	0.0	0.0	7.9
2	75	Cadmium and its compounds	0.1	0.1	0.0	0.0	20.8
3	132	Cobalt and its compounds	0.0	0.1	0.0	0.0	19.5
4	300	Toluene	32.0	0.0	0.0	1.6	281.0
5	305	Lead compounds	0.7	0.1	0.0	0.0	14.6
6	309	Nickel compounds	0.1	0.4	0.0	0.0	9.3
7	354	Dibutyl phthalate	0.0	0.0	0.0	0.3	5.8
8	405	Boron compounds	0.0	9.3	0.0	0.0	3.5
							(g-TEQ)
9	243	Dioxins	0.1	0.0	0.0	0.0	7.0

* The values given are the total amount reported by operating sites subject to reporting requirements under the PRTR Act. (the domestic companies defined in Scope of this Report on page 3 as subject to Environment section reporting).
Of the 49 chemical substances subject to reporting, those totaling at least 5.0 tons in any category, and dioxins, are listed here.
There were no cases of chemical substances released into the soil.

Occupational Health and Safety

Occupational and Other Accidents*1, *2

Category				2019	2020	2021
Safety performance at domestic operating sites*3	Employees (including Group companies)	Casualties of occupational accidents	Fatalities (persons)*4	0	0	0
			Occupational accidents with severe consequences (persons)*4	0	0	0
			Accidents with lost work days (persons)*4	3	7	10
			Accidents without lost work days (persons)*4	10	13	24
			Total (persons)	13	20	34
		Major types of occupational accidents*5	Strain or overexertion	1	5	6
			Fall on same level	1	1	3
			Caught in, on or between	1	3	1
		Frequency rate of industrial accidents*6	Fatalities*4	—	0.00	0.00
			Occupational accidents with severe consequences*4	—	0.00	0.00
			Accidents with lost work days*4	—	0.53	0.74
		Severity rate of industrial accidents*6		—	0.03	0.03
		Cumulative work hours*6		—	13,290,060	13,442,362
	Employees of subcontractors*7	Casualties of occupational accidents*5	Fatalities (persons)	0	2	0
			Occupational accidents with severe consequences (persons)	2	0	0
			Accidents with lost work days (persons)	2	2	6
			Accidents without lost work days (persons)	5	6	13
			Total (persons)	9	10	19
		Major types of occupational accidents*5	Cut or rubbed	1	4	4
			Crashes or falls to lower level	0	2	2
			Struck by object	2	0	0
		Frequency rate of industrial accidents*6,7	Fatalities*4	—	0.64	0.00
			Occupational accidents with severe consequences*4	—	0.00	0.00
			Accidents with lost work days*4	—	0.64	1.94
		Severity rate of industrial accidents*6,7		—	4.82	0.11
		Cumulative work hours*7		—	3,117,548	3,090,280
		Total casualties (persons)		22	30	53
		Occupational injury rate per 1,000 employees (four or more lost workdays)*8		0.7	1.1	1.7
		Explosions and fires (incidences)*9		3	1	0
(Reference) Safety performance at overseas operating sites*10		Fatalities (persons)		1	0	0
		Accidents with lost work days (persons)		18	13	19
		Accidents without lost work days (persons)		3	5	7
		Total (persons)		22	18	26
		Major types of occupational accidents	Caught in, on or between	8	3	8
			Fall on same level	1	5	4
			Strain or overexertion	0	3	3

*1 Safety performance data is compiled on a calendar year basis (January to December).
*2 The number of casualties presented in this table includes work-related illnesses such as back pain and heat stroke.
*3 Until 2019, data included the Company and other Group companies (excluding Toho Titanium Co., Ltd.); however, from 2020, Toho Titanium and subcontractors have also been included in the scope of aggregation, and data has been retroactively revised to 2019. Note that frequency and severity rates are excluded.
*4 Each accident category is defined as follows.
- Fatalities: Worker deaths resulting from work-related causes.
- Occupational accidents with severe consequences: Accidents resulting in more than six months of lost work days or a disability grade.
- Accidents with lost work days: Accidents requiring one or more days of absence from work for the purpose of examination, treatment or recuperation. These shall in principle be at a physician's discretion. Note that this excludes "Occupational accidents with severe consequences."
- Accidents without lost work days: An accident that does not require one full day or more of absence from work as diagnosed by a physician, and in which the affected worker is able to go to work after the accident.

*5 Incidences related to the cause of the injury or illness, based on "Types of Accidents," published by the Ministry of Health, Labour and Welfare.
*6 Both the frequency rate (the number of persons harmed or killed due to occupational accidents per million cumulative actual work hours) and the severity rate (number of work days lost per thousand cumulative actual work hours) had only covered Company employees until 2019; however, as of 2020, these figures cover Company employees and employees at other Group companies (including Toho Titanium Co., Ltd.). Note that cumulative working hours are calculated based on the hours reported from work sites with production facilities (operations divisions) and major offices such as the head office, including some estimation in the figures.
*7 Safety statistics for subcontractor employees include not only those stationed permanently but also spot vendors. Note that these are subject to statistics for frequency rate and severity rate as of 2020. Here, cumulative work hours are calculated as follows: Number of permanently stationed subcontractor employees at the end of each month x number of operating days x 8 hours/day.
(Reference) In 2021, the frequency and severity rate of occupational accidents for all businesses in Japan were 2.09 and 0.09, respectively (Source: Ministry of Health, Labour and Welfare, "Survey on Industrial Accidents")
*8 The Group defines a serious accident as one that results in four or more lost work days, and considers the occupational injury rate per 1,000 employees to be one of its key indicators for evaluation. (Occupational injury rate per 1,000 employees (four or more lost workdays) = number of casualties with four or more lost workdays ÷ total number of employees (including employees of regular partner companies) x 1,000)
*9 No physical injuries were caused as a result of explosions/fires.
*10 While this includes Group companies and subcontractors, this data should be used only for reference as it is difficult to conduct follow-up surveys and aggregate working hours for subcontractors at overseas operating sites, and detailed data such as frequency rates are not disclosed.

Human Resource Development

Training Programs Implemented in Fiscal 2021 ☑

(hours)

	Managerial staff			Non-management employees			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total program hours (annual)	13,049	505	13,554	54,244	7,646	61,890	67,293	8,151	75,444
Per employee	30	11	22	42	14	24	24	25	24

* Survey scope: Employees of JX Nippon Mining & Metals plus those seconded by the Company to JX Nippon Environmental Services Co., Ltd. and JX Metals Smelting Co., Ltd. (Saganoseki Smelter & Refinery, Hitachi Refinery)

Employment and Work Styles

Survey scope: Companies in which JX Nippon Mining & Metals has 50% or more of their voting rights, directly or indirectly

Counting of seconded employees: Includes all employees being seconded to or from the companies subject to this survey

No. of Employees (by Employment Status and Employment Contract Type; as of March 31, 2022) ☑

(persons)

Employment status	Contract type	Male	Female	Total
Full-time	Contracts without fixed terms	8,045	1,249	9,294
	Contracts with fixed terms	524	120	644
Full-time subtotal		8,569	1,369	9,938
Part-time	Contracts without fixed terms	27	45	72
	Contracts with fixed terms	67	36	103
Part-time subtotal		94	81	175
Total		8,663	1,450	10,113

(persons)

Employment status	Contract type	Japan	North America	South America	Asia	Europe	Middle East	Total
Full-time	Contracts without fixed terms	6,456	123	916	1,423	364	12	9,294
	Contracts with fixed terms	475	2	76	63	28	0	644
Full-time subtotal		6,931	125	992	1,486	392	12	9,938
Contracts without fixed terms	Contracts with fixed terms	48	0	0	3	21	0	72
	Part-time subtotal	102	0	0	0	1	0	103
Part-time subtotal		150	0	0	3	22	0	175
Total		7,081	125	992	1,489	414	12	10,113

No. of Employees (by Region; as of March 31, 2022) ☑

(persons)

	Japan	North America	South America	Asia	Europe	Middle East	Total
Male	6,266	96	904	1,043	342	12	8,663
Female	815	29	88	446	72	0	1,450
Total	7,081	125	992	1,489	414	12	10,113

No. of Newly Hired Employees (April 1, 2021 to March 31, 2022) ☑

(persons)

	Male	Female	Total
New hires	718	151	869
Percent of total employee count as of March 31, 2022	8%	10%	9%

(persons)

Age 29 or younger	Age 30 to 49	Age 50 or older	Total
337	400	132	869
23%	7%	5%	9%

(persons)

	Japan	North America	South America	Asia	Europe	Middle East	Total
New hires	581	28	140	108	12	0	869
Percent of total employee count as of March 31, 2022	8%	22%	14%	7%	3%	0%	9%

No. of Employees Ending Employment (April 1, 2021 to March 31, 2022) ☑

(persons)

	Male	Female	Total
Retiring employees	550	95	645
Percent of total employee count as of March 31, 2022	6%	7%	6%

(persons)

Age 29 or younger	Age 30 to 49	Age 50 or older	Total
146	309	190	645
10%	5%	7%	6%

(persons)

	Japan	North America	South America	Asia	Europe	Middle East	Total
Retiring employees	357	34	120	124	10	0	645
Percent of total employee count as of March 31, 2022	5%	27%	12%	8%	2%	0%	6%

* Figures include employees transferred to companies outside of survey scope and those returning due to termination of secondment.
* Figures do not include employees who were transferred within a company inside the survey scope, or those returning due to termination of secondment.
* Employees retiring at the mandatory retirement age are not in scope.

Membership in Labor Unions (as of March 31, 2022) ☑

(persons)

	Male	Female	Total
No. of union members	5,426	799	6,225
Unionization rate	63%	55%	62%

(persons)

Age 29 or younger	Age 30 to 49	Age 50 or older	Total
1,120	3,896	1,209	6,225
76%	65%	46%	62%

Diversity

Use of Childcare Leave in Fiscal 2021 (JX Nippon Mining & Metals) ☑

(persons)

	Male	Female	Total
No. of employees using leave	20	13	33
No. of employees eligible to use leave*	106	13	119
Usage rate (rounded to nearest percent)	19%	100%	28%

* Male: Employees with a child born within the fiscal year
Female: Employees whose post-childbirth leave ended during the fiscal year and who can take childcare leave

Retention Rate After Childcare Leave (Percentage of Those Still Employed 12 Months After Returning From Leave) (JX Nippon Mining & Metals) ☑

(persons)

	Male	Female	Total
No. of employees who returned to work from childcare leave during fiscal 2020	19	3	22
No. of employees still employed 12 months after returning to work	16	3	19
Percentage	84%	100%	86%

Rate of Return to Work After Childcare Leave (JX Nippon Mining & Metals) ☑

(persons)

	Male	Female	Total
No. of employees who returned to work from childcare leave during fiscal 2021	17	12	29
No. of employees scheduled to return to work	17	12	29
Percentage	100%	100%	100%

Status of Rehiring Efforts in Fiscal 2021 (JX Nippon Mining & Metals) ☑

(persons)

No. of age-limited retirees	70
No. of these rehired	53
Percentage	76%

Persons With Disabilities as a Percentage of the Workforce in Fiscal 2021 (JX Nippon Mining & Metals) ☑

Percentage of employees with disabilities (statutory minimum: 2.3%)	2.21%

No. of Locally Hired Senior Managers Overseas (Section Manager or Above) and Locally Hired Employees (as of March 31, 2022)

(persons)

		Number of senior managers	Senior managers as a share of locally hired employees*1	Number of locally hired employees*2
North America	Male	13	15%	85
	Female	3	10%	29
North America subtotal		16	14%	114
South America	Male	43	5%	862
	Female	6	7%	86
South America subtotal		49	5%	948
Europe	Male	38	12%	327
	Female	8	12%	68
Europe subtotal		46	12%	395
Asia	Male	106	11%	982
	Female	63	14%	444
Asia subtotal		169	12%	1,426
Total		280	10%	2,883

Scope of aggregation: Overseas Group companies in which JX Nippon Mining & Metals has 50% or more of their voting rights, directly or indirectly
Treatment of seconded employees: Employees seconded from companies outside of survey scope to companies inside of survey scope are counted.
Employees seconded from companies inside of survey scope to companies outside of survey scope are also counted.
*1 Percentage calculated as (Number of senior managers ÷ Number of locally hired employees) x 100
*2 The number of employees directly employed by overseas subsidiaries, excluding employees on secondment and employees transferred to overseas subsidiaries

Independent Assurance Report

To the President and Chief Executive Officer of JX Nippon Mining & Metals Corporation

We were engaged by JX Nippon Mining & Metals Corporation (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with ☑ (the "Indicators") for the period from April 1, 2021 to March 31, 2022; the alignment of the Company's policies to the International Council on Mining and Metals ("ICMM")'s 10 Principles, the relevant Corporate-level Performance Expectations (CPEs) and the applicable mandatory requirements set out in ICMM position statement; the Company's prioritization process for selecting assets for the validation of Asset-level Performance Expectations (APEs); the Company's identification and prioritization of material issues and the Company's approach and management of its material issues included in its Sustainability Report 2022 (the "Report") for the fiscal year ended March 31, 2022.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report; reporting on the alignment of the Company's policies to the ICMM's 10 Princiles, the relevant CPEs and the applicable mandatory requirements set out in ICMM position statements; reporting on the Company's prioritization process for selecting assets for the validation of APEs; reporting on the Company's identification and prioritization of material issues and reporting on the Company's approach and management of its material issues.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing analytical procedures on the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
- Visiting Toho Titanium Co., Ltd.'s Wakamatsu Plant and Yahata Plant selected on the basis of a risk analysis.
- Evaluating the overall presentation of the Indicators.
- Assessing the alignment of the Company's policies to the ICMM's 10 Principles, the relevant CPEs and the applicable mandatory requirements set out in ICMM position statements through documentation reviews and interviews.
- Assessing the Company's prioritization process for selecting assets for the validation of APEs through documentation reviews and interviews.
- Interviewing the Company's responsible personnel and reviewing documents with respect to the Company's process of identifying and prioritization its material issues and its approach to and management of its material issues.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that:

- the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report;
- the Company's policies are not aligned to the ICMM's 10 Principles and the applicable mandatory requirements set out in ICMM position statements as described on page 18 of the Report;
- the Company's self-assessment of the relevant CPEs is not as described on page 108 of the Report;
- the Company's prioritization process for selecting assets for the validation of APEs is not as described on page 108 of the Report;
- the Company has not identified and prioritized its material issues as described on pages 35 and 36 of the Report;
- the Company has not approached and managed its material issues as described on pages 35, 36, 47, 61, 77, 89, 94 and 99 of the Report.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Kazuhiko Saito, Partner, Representative Director
KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
March 23, 2023

Notes to the Reader of Independent Assurance Report:
This is a copy of the Independent Assurance Report and the original copies are kept separately by the Company and KPMG AZSA Sustainability Co., Ltd.