

Hitachi Metals Group

CSR Detailed Activity Report 2020

Published: January 2021

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About This Document

Purpose of Publication

This report is published for the purpose of comprehensive disclosure of the Hitachi Metals Group's basic approach to corporate social responsibility (CSR), and the content of its related activities.

Note: The main activities for fiscal 2019 are stated in "The Hitachi Metals Group Report 2020 (Integrated Report)."

Publication Date

January 2021

The Scope of This Report

Period covered: The report focuses on fiscal 2019 (April 1, 2019 to March 31, 2020).

Organizations covered: Hitachi Metals, Ltd. and consolidated subsidiaries

Scope of recorded data: **Finance** Hitachi Metals, Ltd., 62 consolidated subsidiaries, and 10 equity method companies

Social Unless stated otherwise, Hitachi Metals, Ltd.

Environment The extent of the data on the environmental burden created by the Hitachi Metals Group is described later.

Major changes occurring within the reporting period: None applicable

Underlying Guidelines

GRI Standards (Global Reporting Initiative)

ISO 26000: 2010 (International Organization for Standardization)

Disclaimer

This report contains forward-looking statements and descriptions of plans, estimates, and projections, as well as facts about the Hitachi Metals Group in the past and at present. Such statements and descriptions reflect our current assumptions and expectations of future events based on information available at present. Accordingly, they are inherently susceptible to uncertainties and changes in circumstances, and future performance and events may differ.

Hitachi Metals Corporate Creed

The origin of our company can be traced back more than one hundred years, and our main products have been leading the industry both qualitatively as well as quantitatively.

We devote ourselves to technology and aspire to contribute to society by being the best enterprise based on “*Wa sureba tsuyoshi*,” embodied by our human resources who are proud to be members of the company.

Corporate Philosophy

韋則彊 (Wa sureba tsuyoshi)

Wa sureba tsuyoshi

Hitachi Metals Group Code of Conduct

Preface

Our corporate creed is to “contribute to society by being the best enterprise.” In striving to accomplish this mission, we embrace the values of our corporate philosophy, “Wa sureba tsuyoshi,” the founding spirit of Hitachi Metals. We have also stipulated the Hitachi Metals WAY, a systematic philosophy that shapes our corporate culture and action principles, in order to provide society with value that is unique to the Hitachi Metals Group.

The Hitachi Metals Group Codes of Conduct consist of rules and principles intended to assist officers and employees in making decisions and taking actions based on “obey the law and walk the path of virtue,” with our corporate creed and corporate philosophy as a foundation, in order to realize this Hitachi Metals WAY. All officers and employees of the Hitachi Metals Group companies shall understand and follow the Codes of Conduct, and act with sincerity and fairness in a highly ethical manner.

1. Toward a Sustainable Society

- (1) We will contribute to resolving social issues by promoting innovative solutions, accelerating collaborative creation with partners and stakeholders, and further integrating social and environmental responsibility into our business activities.
- (2) We will strive to develop technologies that contribute to social development and use them with due consideration of their impact on society.
- (3) We envision a low-carbon society, a resource efficient society, and a harmonized society with nature. To this end, we will endeavor to reduce CO₂ emissions, use water and other resources efficiently, and minimize impacts on natural capital throughout our value chain.
- (4) As a corporate citizen, we will make efforts to build a rapport with communities and contribute to their development by working together to resolve social issues.

2. Sincere and Fair Business Activities

2.1 Fair Trading

- (1) To ensure fair and open competition, we will observe the fundamental rules of trade, including domestic and overseas competition laws and regulations, and act in compliance with legislation and sound corporate ethics.
- (2) We will have no relationship whatsoever with antisocial forces anywhere in the world, and resolutely reject involvement in improper or antisocial transactions.
- (3) We will not trade shares using undisclosed information regarding the Group, affiliated companies, business partners, or customers that could affect the judgment of investors (insider information).
- (4) We strictly prohibit and will have no involvement in bribery and other corrupt business practices. We will neither give or receive gifts nor extend or accept invitations to business entertainment beyond socially accepted limits, as we recognize that such practices can foster corruption. When working with political entities, we will build and maintain sound and transparent relationships.

- (5) We will help maintain international peace and security through compliance with all applicable laws and regulations concerning import and export, and will operate appropriately according to our internal rules and policies.
- (6) We will comply with applicable laws, respect social cultures and practices, and act sincerely and fairly in countries and regions where we have operations. Furthermore, we will do so guided by international norms and standards even in areas where legislation is not adequately enforced.

2.2 Relationships with Suppliers

- (1) With a global vision, and mindful of the long-term perspective, we will find qualified suppliers and build fair and equal partnerships with them, working together to build mutual understanding and trust.
- (2) In selecting suppliers, we will thoroughly review the quality, reliability, delivery time, and price of the materials they provide as well as their business stability and technological capability. We will give due consideration to their adoption of social responsibility practices, including areas such as the abolition of unfair discrimination, the elimination of child labor and forced labor, and environmental conservation.
- (3) We will not accept any personal benefits from suppliers in procurement transactions.

2.3 Relationships with Customers

- (1) We will provide products and services that meet the needs and requirements of our customers, complying with relevant laws and standards and ensuring quality and safety by setting additional standards of our own where necessary.
- (2) We will communicate with customers sincerely, address defects and customer complaints quickly and in good faith, and strive to determine causes in order to eliminate them and prevent recurrence.

3. Respect for Human Rights

- (1) We will promote our understanding of internationally recognized human rights, and will respect and not infringe on the human rights of all those involved in our business activities.
- (2) We will implement human rights due diligence appropriate to the social circumstances of the countries and regions where we have operations and the nature of our businesses, products, and services there.
- (3) We will assess and prevent potential violations of human rights. In the event of such a violation, we will promptly take internal and external actions to correct and remedy the situation.
- (4) We will respect individual human rights in the recruitment and treatment of employees and during all other company activities. We will not engage in any acts that may impair individual dignity or discriminate on bases such as sex, sexual orientation, age, nationality, race, ethnicity, ideology, belief, religion, social status, family origin, disease, disability.
- (5) We will hire employees in compliance with the relevant laws and regulations in each country and region, and in accordance with international norms and standards. We will not use child labor that employs children below the minimum working age or forced labor that is against the will of employees.

- (6) We will strive to resolve issues through sincere and constructive discussion between management and employees, in compliance with the laws, regulations, and labor practices of each country and region, and in accordance with international norms and standards.

4. Building a Work Environment That Brings Out Employee Strengths

- (1) Prioritizing health and safety above all else, we will strive to ensure the safety of employees and the workplace. In addition, we will promote the physical and mental health of employees and their families.
- (2) We will support flexible work styles and respect diverse values, creating workplaces that provide employees with a sense of accomplishment and personal growth, and we will promote the sustainable growth of the organization and individuals.
- (3) We will invest in educational programs to help employees expand their capabilities and exercise their strengths. Supervisors will fairly and appropriately support, guide, and educate their employees to develop their abilities.

5. Information Management and Communication

- (1) We will promote the ethical handling of information, so as to ensure respect for human rights and security, through the proper management of personal information based on our Personal Information Protection Policy.
- (2) We will properly manage and protect confidential information related to our business activities in compliance with domestic and international laws and regulations as well as our internal rules and policies.
- (3) In order to maintain and expand our trusting relationship with the Hitachi Metals Group's diverse stakeholders, we will disclose information openly and transparently, and respond to stakeholders responsibly through dialogue and other means of communication.

6. Protection of Intellectual Property and Brand

- (1) We will protect our own intellectual property, respect third-party intellectual property, and use both effectively for smooth business operations.
- (2) We will manage our own and third-party confidential information by importance and manage and handle it appropriately based on this ranking.
- (3) We will protect and enhance the value of the Hitachi Metals Brand, recognizing it as an important management asset.

7. Securing Corporate Assets

We will use all our corporate assets only for business activities and other appropriate purposes, and manage them properly to protect their value.

8. Crisis Management

We will make concerted efforts throughout the Hitachi Metals Group to secure employee safety and business continuity in case of disasters and threats such as earthquakes, tsunamis and floods, cyberattacks, and terrorism.

9. Responsibilities of Employees

Employees shall pledge to comply with the Codes of Conduct. If they become aware of any non-compliant activity, they shall immediately report to their manager or via the internal reporting system.

10. Responsibilities of Top Management

The top management shall take the initiative in complying with the Codes of Conduct and make their best efforts to conduct business based on corporate ethics and the law. In the event of a violation of the Codes of Conduct, the top management shall swiftly take corrective measures and actions to prevent the recurrence of similar incidents, while at the same time strictly disciplining themselves as well as those involved in the violation.

Formulated: September 17, 2010

Revised: October 1, 2018

I. Message from the Management

In fiscal 2019, we made efforts under our 2021 medium-term management plan, but the market environment for automobiles and aircraft was severe, and at the end of the fiscal year, we were affected by the spread of the COVID-19 infection. As the difficult business environment continues, all employees will work together under the new management system to promote management reforms and make every efforts to lay the foundation for the recovery of business performance and future growth. The Hitachi Metals Group Report 2020 Integrated Report is a communications tool that helps our stakeholders understand how we are working to enhance our corporate value, including the Group's strengths, Corporate Philosophy, and process for creating value. It is also a systematic compilation of financial and non-financial information that is considered important for continuous growth. In addition, by referring to documents such as the "International Integrated Reporting Framework" published by the International Integrated Reporting Council and the "Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation" formulated by the Ministry of Economy, Trade and Industry, our departments cooperate with each other in reporting our Group's ideas that cut across silos in an integrated fashion. In this way, we strive to disclose information in an easy-to-understand manner. This document, the Hitachi Metals Group CSR Detailed Activity Report 2020, reports in detail our environmental, social, and governance activities.

Chairperson, and President and CEO

Mitsuaki Nishiyama

II. About the Hitachi Metals Group

1. Corporate Profile

Corporate Name	Hitachi Metals, Ltd.
Established	April 10, 1956
Head office	2-70, Konan 1-chome, Minato-ku, Tokyo 108-8224, Japan
Representative	Chairperson, President and CEO: Mitsuaki Nishiyama
Capital	26,284 million yen (As of the end of March 2020)
Number of Employees	Hitachi Metals, Ltd., Non-consolidated: 7,022 Hitachi Metals Group, Consolidated: 29,805 (As of the end of March 2020)
Products and Businesses	Manufacture and marketing of metallic materials and advanced components and materials
Group companies	62 consolidated subsidiaries (23 in Japan, 39 outside Japan) 10 equity method companies (six in Japan, four outside Japan) (As of the end of March 2020)

2. Consolidated Operating Performance

	FY2018	FY2019
Revenues	1023421	881,402
Adjusted operating income*	51427	14,383
IFRS operating income	42442	(39,126)
Total assets	1099252	977,766
Interest-bearing debt	202098	187,586
Total equity	595211	522,853
Capital expenditure	95389	54,019
R&D expenses	18604	15,918

Note: Adjusted operating income: Revenues – Cost of sales – Selling, general and administrative expenses

3. Business Bases

Please see the following links on the Hitachi Metals website.

WEB Main Sales Bases

WEB <http://www.hitachi-metals.co.jp/e/corp/bases01.html>

WEB Major Operation Bases / R&D Bases


















WEB <http://www.hitachi-metals.co.jp/e/corp/bases02.html>

WEB The Hitachi Metals Group

WEB <http://www.hitachi-metals.co.jp/e/corp/corp08.html>

4. Business Domains and Major Product Applications

The Hitachi Metals Group specializes in the development of high-performance materials. Leveraging this expertise, we supply materials and products mainly to customers in segments related to industrial infrastructure, automotive, and electronics.

	Business Segments	Industrial Infrastructure	Automobiles	Electronics
Advanced Metals Division	Specialty Steel Products	 Molds and tool steel / Rolls Rolls for steel mills	 Hot molds and tool steel	
	Functional Components and Equipment	 Industrial, Aircraft & Energy Materials Turbine case	 CVT belt materials	 Alloys for electronic Lead frame materials
Advanced Components and Materials Division	Magnetic Materials and Applications		 Automotive casting products	 "HERCUNITE™" heat-resistant cast components
	Power Electronics	 Piping Components Pipe fittings	 Polyethylene gas piping systems	
	Wires, Cables, and Related Products		 Magnetic materials "NEOMAX®" neodymium magnets	 "NMF®" ferrite magnets
		 "Metglas®" amorphous metals	 Power electronics	 Silicon nitride substrate
		 Electrical wire for rolling stock	 Cables for FA/industrial robots	 Automotive Components Harnesses for electric parking brakes

III. Corporate Governance

1. Basic Approach

The underlying basis for corporate governance at Hitachi Metals is to ensure transparent, sound, and efficient management, meet the needs of our stakeholders, and increase corporate value.

We believe increasing corporate value to be one of our most important management challenges. Accordingly, it is imperative that we create an organizational structure in which management oversight and business operations function effectively and in balance. We also believe that timely, high-quality information disclosure contributes to the improvement of corporate governance. In pursuit of this philosophy, we go beyond simple financial disclosure, regularly publishing the details of individual business segments and medium-term management plans.

We acknowledge that compliance is the linchpin of corporate governance. Nonetheless, our corporate activities go beyond mere compliance with laws and internal regulations, extending to the role we must fulfill as a member of society, based on respect for social ethics and morality. We established the Hitachi Metals Group Code of Conduct (posted on our corporate website at <https://www.hitachi-metals.co.jp/e/corp/corp15.html>) to give form to this perspective and establish specific standards of conduct for officers and employees.

The policy concerning compensation for directors and executive officers is that the Company shall compensate directors and executive officers for executing management that enhances the Company's corporate value and contributes to stakeholders by formulating, deciding, and implementing management policies, medium-term management plans, and annual budgets from a medium- to long-term perspective, and that the compensation system shall reflect the Company's performance over the short, medium, and long terms.

The Company has prescribed its framework for corporate governance in the Corporate Governance Guidelines (the "Guidelines") and the fundamental policy concerning the system of internal controls established by the Board of Directors based on the Companies Act. The Guidelines are posted on the Company's website (<https://www.hitachi-metals.co.jp/e/ir/ir-csr.html>). The details of the fundamental policy concerning the system of internal controls are disclosed in our annual securities reports.

2. Overview of the Corporate Governance Structure

(Supervisory System)

Hitachi Metals has adopted the system of a company with a nominating committee, etc. This system helps the Company to swiftly implement bold policies and measures as well as Companywide management that encompasses business reorganization and strategic investments. The Company has outside directors on its Board of Directors, who also serve on the Nominating, Audit, and Compensation committees. Well versed in general societal matters and possessing extensive experience and advanced knowledge, these outside directors contribute to the strengthening of the decision-making and oversight functions as well as the improvement of management transparency, integrity, and efficiency. Under this system, the Company elects six directors, including one woman and three outside directors, and has established the Board of Directors, Nominating Committee, Audit Committee, and Compensation Committee, in accordance with the provisions of the Companies Act. In addition, the Board of Directors Office has been established and staffed to assist the Board of Directors and the committees in executing their duties. The purpose, authority, and names of the members of these organizations are described below, along with other details.

- (1) The purposes of the Board of Directors are to decide on the Company's business execution and to supervise the execution of duties by the directors and executive officers. The Board of Directors is authorized to make decisions on the matters specified by the Company's Articles of Incorporation and Board of Directors Rules, in addition to those specified by laws and regulations. The Board of Directors met 15 times in fiscal 2019. The directors serving during this fiscal year attended all meetings held during their terms of office, where they heard reports from executive officers and committees on the status of their execution of duties and made decisions on matters for which authority could not be delegated to executive officers under laws and regulations and the Articles of Incorporation, and critical matters specified by the Board of Directors Rules.

As of the end of June 2020, the Board of Directors consists of six directors (including three outside directors), as listed below.

Directors	Kenichi Nishiie	(Chair)
Directors	Makoto Uenoyama	(Outside)
Directors	Toshiko Oka	(Outside)
Directors	Koichi Fukuo	(Outside)
Directors	Chairperson, President and CEO	
Directors	Mamoru Morita	

- (2) The purpose of the Nominating Committee is to make decisions on matters relating to items concerning proposals on the appointment and dismissal of directors to be submitted at a General Meeting of Shareholders. The Committee is authorized to decide such matters as well as to designate persons entitled to convene a Board of Directors meeting and persons to report on the status of the Committee's execution of duties to the Board of Directors from among its Committee members. The Nominating Committee met seven times in fiscal 2019. Directors serving during this fiscal year attended all meetings of the Nominating Committee held during their terms of office, where they determined candidates for outside directors, deliberated the executive officer system, and discussed plans for management successor development.

As of the end of June 2020, the Nominating Committee consists of four directors (including three outside directors), as listed below.

Directors	Koichi Fukuo	(Chair, Outside)
Directors	Makoto Uenoyama	(Outside)
Directors	Toshiko Oka	(Outside)
Directors	Chairperson, President and CEO	

- (3) The purposes of the Audit Committee are to audit the execution of duties by directors and executive officers and resolve issues such as matters relating to items concerning proposals on the appointment, dismissal, and non-reappointment of the Accounting Auditor to be submitted at a General Meeting of Shareholders, so as to ensure that the Company's business is operated lawfully and properly. The Committee is authorized to resolve such issues as well as to formulate policies for the determination to dismiss or not reappoint the Accounting Auditor or to nominate persons entitled to convene a Board of Directors meeting from among its members.

The Committee also has the authority to appoint committee members who may request reports on matters relating to the business of or the execution of duties on behalf of the Company or its subsidiaries and who may investigate the status of the operations and the financial status of the Company or its subsidiaries under Article 405 of the Companies Act. Further information on the Audit Committee, including its activities, is provided later in this document ("The Audit Committee as an Audit Organization").

As of the end of June 2020, the Audit Committee consists of four directors (including three outside directors), as listed below.

Directors	Makoto Uenoyama	(Chair, Outside)
Directors	Toshiko Oka	(Outside)
Directors	Koichi Fukuo	(Outside)
Directors	Kenichi Nishiie	

- (4) The purpose of the Compensation Committee is to determine the compensation and its components received by each director and executive officer. The Committee is authorized to decide such matters as well as to formulate policy on the determination of compensation and its components received by each director and executive officer. In addition, it designates persons entitled to convene a Board of Directors meeting and persons to report on the status of the Committee's execution of duties to the Board of Directors from among its members. The Compensation Committee met five times in fiscal 2019. Directors serving during this fiscal year attended all meetings of the Compensation Committee held during their terms of office, where they formulated policies on the determination of compensation and its components received by directors and executive officers, and determined compensation and its components for each director and executive officer accordingly.

As of the end of June 2020, the Compensation Committee consists of four directors (including three outside directors), as listed below.

Directors	Chairperson, President and CEO	(Chair)
Directors	Makoto Uenoyama	(Outside)
Directors	Toshiko Oka	(Outside)
Directors	Koichi Fukuo	(Outside)

(Business Execution System)

Regarding business execution, the Board of Directors delegates a great deal of decision-making authority concerning business execution to the 10 executive officers (all male) to achieve prompt decision-making. The Company has established the Executive Committee to ensure that the Chairperson makes decisions on and executes business operations in compliance with laws and regulations and the Articles of Incorporation, and does so efficiently. The Committee deliberates on important matters related to the decision of business delegated from the Board of Directors to the Chairperson, and then the Chairperson makes decisions regarding the matters. The Executive Committee consists of the Chairperson, the executive officers in charge of corporate administration, the executive officers in charge of sales, and the general managers of divisions. Other members may be appointed as necessary by the Chairperson who serves as the chair. In addition, on April 27, 2020, the Company disclosed in "Regarding the description of inappropriate numerical values in inspection reports for some products of the Company and its subsidiaries" that inspection reports for some special steel products and magnetic material products (ferrite magnets and rare earth magnets) manufactured by the Company or its subsidiaries which had been presented to our customers contained inappropriate values. Although the Company, an enterprise engaging in manufacturing, must absolutely avoid the occurrence of quality-related improper behavior, it occurred and caused a great inconvenience to our customers and other stakeholders. We are taking this situation extremely seriously. On April 27, 2020, the Company set up a special investigation committee consisting of outside experts which is investigating the facts and root causes from an objective point of view, and at the same time, our internal countermeasures headquarters is playing a central role to build an appropriate quality assurance system. In addition, in order to further promote reform in all aspects of management such as the organization and management systems, and to ensure objectiveness as well as fairness in investigating the facts and causes of this case and in considering as well as implementing measures based on the investigation, at the end of May 2020, several executive officers including the then President and one director who had been the President in the past retired. Furthermore, on June 1, 2020, the Chairperson started serving concurrently as the President in order to expedite decision-making, and a new executive officer was added to establish a new management structure. With a view to changing into a company that conducts fair and honest business under the new management structure, the Company will thoroughly investigate the facts and root causes of the improper behavior and execute reforms in all aspects of management.

(Internal Audit Organization)

The Company's Internal Auditing Office (with nine dedicated staff members) is in charge of internal audits. The Internal Auditing Office formulates annual audit policies and audit implementation plans for internal audits targeting the Group. Based on these policies and plans, the office conducts on-site audits on the status of management and business execution at the Company's offices and subsidiaries in Japan and overseas over the course of three years, in principle, and collaborates with the Audit Committee and the Accounting Auditor to promote tripartite cooperation for a tripartite audit function. In addition to these audits, a special audit may be conducted upon a special request of the Chairperson. The Internal Auditing Office also reports to the Chairperson and the Audit Committee about its audit implementation plans in advance, and generally reports the audit results once a month. In addition, the Internal Auditing Office in principle meets monthly with a representative of each relevant business division and each Corporate Administrative Division and gives instructions for implementing improvements. If necessary, it also carries out audits in collaboration with individual divisions in charge of the environment, safety, and systems within the Company.

(The Audit Committee as an Audit Organization)

The Audit Committee is in charge of auditing business execution by directors or executive officers in accordance with laws and regulations and the Articles of Incorporation, the appropriateness of management decisions, the adequacy of internal control systems, and the accounting audit. The execution of duties by the Audit Committee is assisted by a dedicated staff member at the Board of Directors Office. To ensure independence from executive officers, the dedicated staff member does not concurrently serve in any other position at any other business operating division. The Audit Committee formulates annual auditing policies and audit implementation plans, and performs audits based on said policies and plans by hearing reports on important items and by its members visiting each facility, etc. and each subsidiary to conduct regular audits. In addition, the Audit Committee conducts special audits if it discovers potential violations of laws, regulations, or the Articles of Incorporation by the directors or the executive officers.

In fiscal 2019, the Audit Committee met 13 times, and every meeting was attended by all members. The following are the major items on the agenda for the Audit Committee meetings, at which the members hold substantive discussions and vigorously debate issues including governance and business challenges.

- (1) Reports and deliberations on the Accounting Auditor's audit plans, quarterly review results, and audit results
- (2) Reports on the Internal Audit division's audit policy, audit plans, and individual internal audit results, and reports and deliberations on the status of follow-up on the management and operational issues found through internal audits
- (3) Regarding internal controls over financial reporting, reports on the implementation policy and plans, and on the results of three rounds of evaluation of the effectiveness of internal controls, and discussions for enhancing the effectiveness of internal controls and improving management
- (4) Reports on the current issues faced by business execution divisions and their actions on these issues, and discussions for improving governance

The Audit Committee conducts a preliminary review of materials prepared in relation to priority items on the agenda for the Board of Directors meetings to foster effective discussions.

All members of the Audit Committee, who are outside directors, attend a session to exchange views with the Representative Executive Officer twice a year in order to share awareness of the current issues and other outstanding problems.

Full-time members of the Audit Committee mainly conduct the following activities.

- (1) Auditing business reports, checking statements of accounts, hearing from the Accounting Auditor on procedures and recommendations on critical issues, and reporting to the Audit Committee findings from business reports and observations on the audits conducted by the Accounting Auditor

(2) Conducting visiting audits of the Group's sites and subsidiaries in accordance with the above audit plans, informing the Internal Audit division and the Accounting Auditor of any issues detected through these audits, and reporting governance issues to the Board of Directors
Through these activities, the Audit Committee strives to strengthen internal controls and improve the quality of operational performance.

Among the members of the Audit Committee, Mr. Makoto Uenoyama once served as a director in charge of accounting and finance at Panasonic Corporation, Ms. Toshiko Oka has obtained abundant experience and in-depth knowledge as corporate manager of a consulting firm, and Mr. Kenichi Nishiie once worked for the audit division of the Company and its subsidiary's finance division. Each of their career histories thus demonstrates their considerable expertise in finance and accounting.

(Accounting Auditor)

Accounting audits for fiscal 2019 were conducted by certified public accountants Mr. Takashi Ouchida and Mr. Teruyasu Omote, engagement partners of Ernst & Young ShinNihon LLC. The number of continuous years of conducting audits of the Company by these accountants has not exceeded seven. Under the direction of said certified public accountants, as necessary, certified public accountants, certified public accountant assistants, and other personnel from Ernst & Young ShinNihon LLC assisted with the execution of accounting audit duties. Nine certified public accountants and 29 other personnel assisted with the Company's accounting audit duties.

(Coordination among the Audit Committee, Accounting Auditor, and Internal Audit Division)

The Audit Committee (1) receives explanations from the Accounting Auditor for the audit implementation plan, and discusses and coordinates the plan as necessary. In addition, the Committee (2) receives reports on audit results and exchanges opinions. Furthermore, (3) in the event that the Accounting Auditor, during the course of executing their duties, discovers misconduct or material facts in violation of laws and regulations or the Articles of Incorporation regarding the execution of duties by executive officers, the Committee receives reports on these matters. The Audit Committee receives reports from the Internal Audit division on its audit implementation plans and regularly examines reports. Furthermore, to promote collaboration between the Internal Audit division and the Audit Committee in auditing, the committee can instruct the Internal Audit division to (1) conduct a special audit of certain divisions deemed to be required by the Audit Committee, and (2) decide on critical audit items in audits conducted by the Internal Audit division. The Internal Auditing Office is also in charge of evaluating internal controls, and reports the status of such to the Audit Committee. Corporate divisions, etc., other than the Internal Audit division, in charge of finances, compliance, risk, and other areas also play a certain role in the Company's internal controls, and report the status of the execution of their duties to the Audit Committee.

Moreover, the Company considers the promotion of tripartite audit function to be its primary theme regarding audit and supervisory functions. The Company, therefore, ensures that the Audit Committee, the Accounting Auditor, and the Internal Audit division share the issues they have respectively detected, going a step beyond one-way evaluation of the Accounting Auditor from the Company's side, based on the evaluation standards for an accounting auditor, and promoting mutual checks and evaluation. In particular, the Company considers the risk detection function of the Accounting Auditor, which is an external institution, as an important aspect of overall risk detection for the Group. In order to reinforce that function, the Company is expanding mutual evaluations between the Accounting Auditor and the Company's finance divisions, the Internal Audit division, and the Audit Committee, respectively. Specifically, based on the evaluation standards for accounting auditors defined by the Audit Committee, the Audit Committee performs a comprehensive evaluation considering the following major factors evaluated by the Company: the Accounting Auditor's communication with the Audit Committee, senior management, the Internal Audit division and others; the audit quality control system; audit plans; the audit team; audit reports and quarterly review reports; and consistency between audit plans and audit hours as a basis of determining the amount of auditing compensation. The Accounting Auditor, on the other hand, evaluates basic operations of the finance division, the Internal Audit division, and the Audit Committee of the Company, the handling of audit requirements, cooperation, risk recognition, activity status, resources, and other factors, and reports the results to the relevant counterparties. The Company utilizes the above feedback to strengthen its functions. The Company is also starting mutual evaluations between the Accounting Auditor and the finance divisions at its business offices and subsidiaries.

(Outside Directors' Functions and Roles)

Three of the Company's six directors, Mr. Makoto Uenoyama, Ms. Toshiko Oka, and Mr. Koichi Fukuo, are outside directors (as of the end of June 2020).

Outside directors act as members of the Board of Directors and members of the Nominating Committee, Audit Committee, and Compensation Committee. The Company believes they possess extensive experience and advanced knowledge, are well versed in the general norms of society, and use their broad perspectives to contribute to the enhancement of decision-making and supervisory functions and efficiency of the Company's management.

(Independence of Outside Directors)

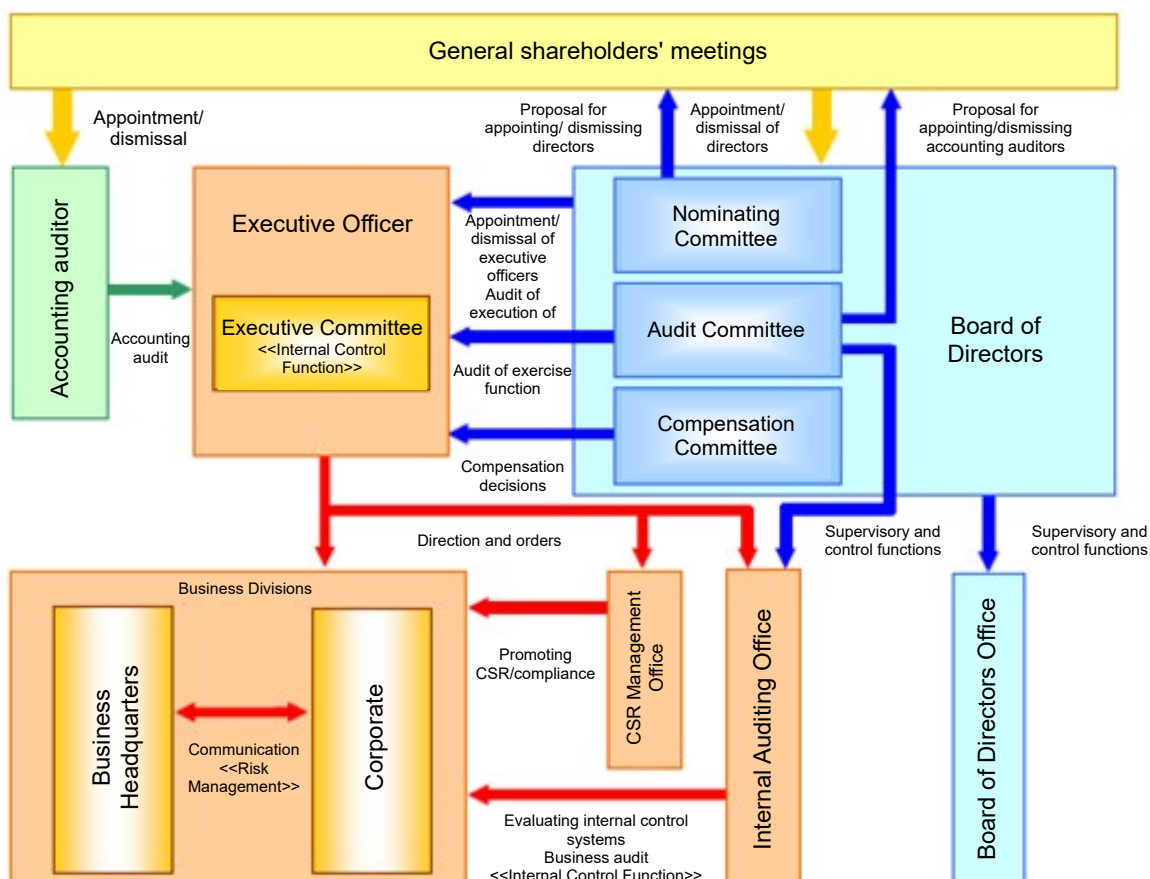
In nominating candidates for outside directors, the Nominating Committee shall consider that the candidate has the highest personal and professional ethics, integrity, and insights regardless of his or her nationality or gender; has abundant experience and in-depth knowledge in business management, law, administration, accounting, education, etc.; is well versed in social norms; and is expected to contribute to the strengthening of the decision-making and supervisory functions of the management of the Company as well as the enhancement of its effectiveness from a wide perspective. In addition, the Nominating Committee judges an outside director to be independent if he or she does not fall under any of the following items:

- (1) a person who has received from the Company a payment of 2% or more of the corporation's consolidated annual revenues for the provision of products or services in the most recent fiscal year or who serves or has served within the last one year as an executing person (that is, an executive director, executive officer, or employee) of the corporation;
- (2) a person who has paid the Company 2% or more of the Company's consolidated annual revenues for the provision of products or services in the most recent fiscal year or who serves or has served within the last one year as an executing person of a corporation;
- (3) an attorney, a certified public accountant, a licensed tax accountant, or a consultant who has received from the Company an annual payment of 10 million yen or more of monetary or other property benefits other than compensation for directors and executive officers within the last one year, or a person who is or has been within the last one year a member, a partner, an associate, or an employee of a law firm, an auditing firm, a tax accountant corporation, a consulting firm, or other professional advisory firm that has received from the Company a payment of 2% or more of the firm's consolidated annual revenues in the most recent fiscal year;
- (4) a person who serves or has served within the last one year as an officer of a not-for-profit organization that has received from the Company discretionary charitable contributions of monetary or other property benefits of 10 million yen or more, or 2% or more of that organization's annual gross revenues or ordinary income, whichever amount is higher, during the most recent fiscal year;
- (5) a person who serves or has served within the last one year as an executing person or a non-executive director of a parent company of the Company;
- (6) a person who serves or has served within the last one year as an executing person of a sister company of the Company;
- (7) a person who is a spouse or a relative within the second degree of kinship of a person (excluding a person who has or had no important position of the following) who falls under the items of the following:
 - 1) who falls under the items of the above (1) through (6);
 - 2) who is, or has been within the last one year, an executing person of a subsidiary of the Company;
 - 3) who is an executing person or non-executive director of a parent company of the Company;
 - 4) who is an executing person of a sister company of the Company;
 - 5) who is, or has been within the last one year, an executing person of the Company; and
- (8) a person who is at risk of having material conflicts of interests with ordinary shareholders for reasons other than those stated above.

There are no personnel relationships, transactional relationships, etc., that fall under any of the items in the criteria stated above, and no other special-interest relationships between any of the outside directors and the Company. The Company considers each outside director to be fully

independent from the Company, and has registered all of these directors with the Tokyo Stock Exchange as independent directors.

Corporate Governance Structure



(Compensation, etc. for Directors and Executive Officers)

Pursuant to provisions of the Companies Act, the Compensation Committee formulated a policy for determining the individual compensation packages, etc., of directors and executive officers. A summary of the policy is as follows:

- (1) The directors and executive officers who manage the Company determine management policies from a long-term perspective, and formulate and execute medium-term management plans and annual budgets. By doing this, they enhance the corporate value of the Company and perform management that contributes to shareholders and other stakeholders, for which they are compensated.
- (2) A compensation system shall be implemented that reflects the Company's performance over the short, medium, and long terms. Compensation shall be provided for outstanding performance in an effort to take full advantage of the management expertise, skills, and know-how of directors and executive officers and to serve as a source of motivation.
- (3) Compensation paid by the Company shall consist of base compensation and a term-end bonus.
 - 1) Base compensation: Base compensation payments shall be determined on the basis of the individual director or executive officer's performance, reflecting their individual responsibility and the rich experience, knowledge, acumen, as well as specialist skills which they have so far obtained. In addition, compensation for directors and executive officers shall be consistent with levels paid by other companies.

- 2) Term-end bonus: A term-end bonus shall be linked to the business performance of the Company.
- (4) To share interests with shareholders by holding treasury stock and thereby promote sustainable growth and the enhanced corporate value of the Company over the medium to long term, directors and executive officers shall, as a general rule, contribute part of their compensation to the officers' shareholding association and acquire treasury stock until such stock reaches a determined number. The acquired stock shall be held continuously during the terms of office of directors and executive officers and, as a general rule, one year after retiring from their posts.

The value of compensation disclosed in the Annual Securities Report for the 83rd business term (April 1, 2019 to March 31, 2020) is as follows:

Director/executive officer category	Total amount of compensation, etc. (millions of yen)	Total amount of compensation, etc., by type (millions of yen)		Number of directors and executive officers who received compensation, etc.
		Base compensation	Term-end bonus	
Directors (excluding outside directors)	116	98	1.8	7
Executive Officer	381	314	6.7	13
Outside directors and officers	53	46	7	5

Notes:

- Directors who work concurrently as executive officers receive compensation as executive officers and do not receive compensation as directors.
- In response to the significant decline in business performance for the current fiscal year, full-time directors and executive officers have returned part of their executive compensation for the latter half of the current fiscal year to clarify their management responsibilities.

(Relationship with the Parent Company)

The Company is a member of the Hitachi Group, for which the parent company is Hitachi, Ltd. In the Hitachi Group, the parent company and listed subsidiaries share the purpose of increasing the value of the entire Group through the strengthening of the competitiveness of each company, and the listed subsidiaries are allowed to enjoy benefits through participating in measures that contribute to strengthening their business base. Regarding the management of the listed subsidiaries, the independent originality of each is respected, the involvement of the parent company is limited except for matters to be submitted to the General Meeting of Shareholders, and management decisions are made based on each company's decision-making procedures. Therefore, as for the relationship with the parent company, the Company maintains autonomy in the business operations and transactions. At the same time, the Company has close collaborative relationships with the Hitachi Group companies through activities such as cooperation in research and development, and effectively uses the Hitachi Group's management resources to provide high-quality products and services.

Hitachi, Ltd., owns 53.5% of the total number of voting rights of the Company (including indirect ownership) as of the end of March 2020. As for personnel relationships, one director of Hitachi, Ltd., also serves as a director of the Company (as of the end of June 2020). Through its expression of opinions and participation in votes at meetings of the Board of Directors of the Company, Hitachi, Ltd., could have an influence on the determination of management policies and other aspects of the Company. Nevertheless, three outside directors have been appointed as independent directors according to the rules of the stock exchange to allow more diversified opinions to be reflected in

discussion at the Board of Directors. Therefore, it is our view that the Company is in a position to be able to make independent management judgments. No executive officers of the Company who perform executive duties are also directors or executive officers of Hitachi, Ltd.

The Company also conducts a range of transactions with Hitachi, Ltd. based on the Hitachi Group's pooling system. These include borrowing and lending as well as other activities. The Company remains convinced, however, that its business activities are not significantly dependent on transactions with Hitachi, Ltd. The Company has adopted a policy that regulates transactions with Hitachi, Ltd. so that they are carried out in a fair manner, based on market prices. The Company has established rules stipulating internal procedures for deciding the terms of transactions, with the aim of ensuring appropriate operations related to transactions in general. All transactions such as sales of products and procurement of materials, etc., including those with Hitachi, Ltd., are conducted according to these rules. If the need arises to conduct transactions with Hitachi, Ltd., the Company's parent company, that could create a material conflict of interest with minority shareholders, the matter shall be referred to the Board of Directors and a decision made based on careful deliberation.

3. Internal Control System

The Company's Board of Directors has established a fundamental policy concerning the system of internal controls pursuant to the Companies Act, and is developing an internal control system based on this policy. The details of the fundamental policy are disclosed in the annual securities reports, etc. Based on the fundamental policy regarding the establishment of the above-mentioned system for ensuring the appropriateness of business (internal control system), we are operating the systems described below to ensure the appropriateness of business. However, regarding some products of the Company and its subsidiaries, it was found that inappropriate numerical values were entered in an inspection report submitted to a customer, and the fact was announced in April 2020. In response to this problem, the Company has set up a special investigation committee consisting of outside experts to investigate the facts and root causes of this occurrence from an objective point of view. Meanwhile, an internal task force plays a central role in taking measures such as a review of the organization to secure effective quality audit and the development of an inspection system that eliminates human intervention and does not allow falsification. The Company is working to strengthen its quality assurance system in order to regain the trust of its customers. Going forward, taking into account the results of the investigation by the committee, the Company will be implementing preventive measures including further enhancing the framework of compliance and quality assurance.

① Compliance

To foster a deeper understanding of compliance, the Company has prepared and distributed the CSR Guidebook to all officers and employees of the Group, and provides Groupwide compliance education in both lecture and e-learning formats, on a regular basis. In addition, the Company has set October of each year as Corporate Ethics Month, and holds compliance lectures delivered by outside instructors for management, as well as various other events to cultivate an awareness of compliance.

In fiscal 2019, we published a new edition of the CSR Guidebook that conforms to the Hitachi Metals Group Code of Conduct revised in the previous fiscal year, and that is completely revised to match the current situation. As an ongoing effort to strengthen compliance, the Company requires its employees in Japan and elsewhere to use a checklist to check their own overall awareness of compliance and adherence to laws and regulations.

② Risk Management

With respect to risk management, each executive officer identifies and analyzes business risks including changes in political, economic, and social situations, currency fluctuations, rapid technological innovations, as well as changes in customer needs, examines measures against such risks, and reviews these measures whenever necessary through discussions at the Board of Directors, the Audit Committee, the Executive Committee, and other meeting bodies. In addition, each of the Group's sites has established a system to promptly share information that has come to light regarding risks related to compliance, antisocial forces, investment, finance, procurement, the environment, disasters, quality, information security, export control, legal affairs, etc., with each business division. Meanwhile, each corporate administrative division has prepared internal rules, guidelines, etc., conducts education and enlightenment activities, preliminary checks, audits of business operations, etc., and cooperates with relevant internal business divisions to avoid, prevent, and manage risks. Furthermore, with regard to business continuity plans (BCPs), the Company has not only prepared the plans but also implements business continuity management (BCM) that periodically and continually improves BCPs in response to changes in the business structure or risks.

In fiscal 2019, with the aim of preventing the spread of the COVID-19 infection, the Company is thoroughly managing hygiene within the Company's facilities and taking various measures such as arranging and enhancing an environment in which remote working can be carried out. In addition, the Company periodically conducts a drill for responding to the Group's system designed to confirm the safety of all employees during times of disaster. The system is actually used during disasters such as large typhoons.

③ Evaluation of the Effectiveness of Internal Controls over Financial Reporting

The Company has set up an Internal Controls Committee, chaired by an executive officer and its secretariat at the Internal Auditing Office, to enhance internal control functions within the Company. The secretariat formulates an evaluation policy every fiscal year and evaluates the development and implementation status of internal controls over financial reporting. The Internal Controls Committee reviews the evaluation results at its meetings (five meetings in fiscal 2019), and provides necessary instructions for the relevant divisions. The Committee's review results are reported to the Executive Committee and the Audit Committee.

④ Internal Audit

The Internal Auditing Office formulates annual audit policies and audit implementation plans for internal audits of the Group. Based on these policies and plans, the Office conducts audits on the status of management and business execution of the Company's offices and subsidiaries in Japan and overseas over the course of three years, in principle (in fiscal 2019, audits were conducted at the Company and 15 subsidiaries in Japan and overseas), and collaborates with the Audit Committee and the Accounting Auditor to promote tripartite cooperation for a tripartite audit function. In addition, special audits may be conducted based on orders of the president and chief executive officer and others. The Internal Auditing Office also reports to the President and the Audit Committee about its audit policies and audit implementation plans in advance, and reports audit results to them on a monthly basis, in principle. The Internal Auditing Office in principle meets monthly with a representative of each business division and each department of the corporate division and gives instructions for implementing improvements.

4. Basic Approach and Development Status Regarding Elimination of Antisocial Forces

Our policy is to take a resolute stance against antisocial forces that pose a threat to the order and safety of civil society, and cut off all ties with them. The following systems have been put in place to ensure the efficacy of this policy.

- (1) The compliance department will address risks involving antisocial forces, and an officer and a person in charge will be appointed for each business office. These people will collect and provide risk-related information, and explain response procedures for risk scenarios.
- (2) To ensure close liaison with the Tokyo Metropolitan Police Department and other police departments with jurisdiction, as well as with external agencies like Tokubouren, we will keep up visits and other links to build up information on antisocial forces. If there is the possibility of harm from such forces, we will promptly notify these agencies, consult with them, and act in partnership with them.
- (3) To eliminate antisocial transactions, we will work to enact rules on the prevention of such transactions, establish a system for the compliance department in all divisions to vet new trading partners, and introduce clauses for the elimination of gang activity from contracts and transaction terms. The compliance department will conduct internal audits to confirm the state of compliance.
- (4) To raise awareness among employees on how to handle antisocial forces, the Company distributes the Hitachi Metals Group CSR Guidebook which declares, "We absolutely refuse all contacts and demands from antisocial forces and groups," and strives to make all employees aware of the declaration.

IV. CSR Management

1. CSR Activities at the Hitachi Metals Group

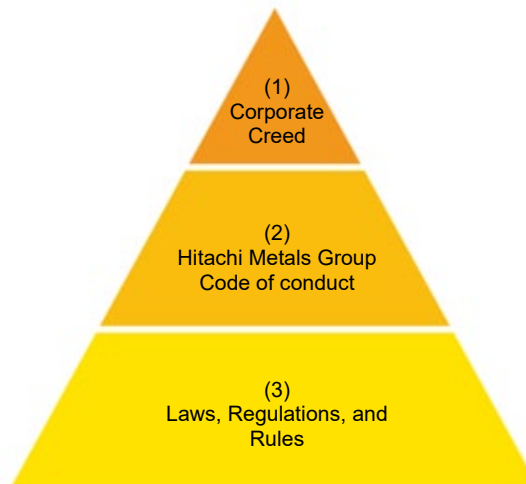
Since our independence from Hitachi, Ltd. in October 1956, we at Hitachi Metals have operated under our Corporate Philosophy of “Wa sureba tsuyoshi” (strength through harmony), and our Corporate Creed of contributing to society by being “the best enterprise.” Accordingly, we have worked to help solve social issues by utilizing our advanced technologies and capabilities.

CSR management, which calls on corporations not only to pursue profitability but also to meet stakeholders’ expectations and contribute to the development of society, is literally consistent with our aspiration declared in our Corporate Creed. It is fair to say that the guiding principles of CSR are the Corporate Creed that we have embraced since our independence.

We at the Hitachi Metals Group promote CSR activities based on our Corporate Creed, aiming to contribute to society through our business operations.

(1) Guidelines for CSR Activities

The Hitachi Metals Group systematically established guidelines for CSR activities as follows:



- (1) The Corporate Creed governs all corporate activities of the Hitachi Metals Group. It also functions as the guiding principles of our CSR activities.
- (2) The Hitachi Metals Group Code of Conduct defines the basis for the decision making and conduct carried out by all Hitachi Metals Group directors and employees in order to realize the Hitachi Metals WAY, based on our Corporate Creed and Corporate Philosophy, adhering to the principle of “obey the law and walk the path of virtue.” It is a declaration to society concerning in which direction our Group should move forward and it also serves as the standard of our corporate ethics.
- (3) Laws and regulations are the basic rules of corporate activity. It should be noted, however, that they stipulate minimum requirements only.

The Hitachi Metals Group aims to carry out its social responsibility and realize its Corporate Creed

through the observance and implementation of laws and regulations, as well as the Hitachi Metals Group Code of Conduct, by all Directors and employees in their daily duties.

(2) Hitachi Metals Group Stakeholders

The business of the Hitachi Metals Group is materialized through engagement with stakeholders. The Hitachi Metals Group considers stakeholders strongly associated with its business activities as “customers,” “shareholders and investors,” “suppliers,” “employees,” and “society and local communities,” and develops its CSR activities by responding to requests and expectations from those stakeholders and contributing to society’s connectivity.

(3) System for Promoting CSR

As the business domains of the Hitachi Metals Group have expanded rapidly on a global scale due to M&A and other activities, thorough compliance has assumed increasing importance as the management foundation that enables the Group to fulfill its social responsibility. The CSR Management Office, an organization that is independent from other corporate and business divisions, plays a central role in working with divisions involved in business activities and Group companies, in order to address compliance issues in response to the demands and expectations of stakeholders.

As an organization to achieve these goals, we have appointed a Hitachi Metals Group Risk Management Officer to supervise the compliance activities of the entire Group, and have also established compliance promotion departments at each of our business divisions and appointed risk management officers at all Group companies, thereby creating a structure that encourages business divisions and Group companies to carry out compliance activities autonomously. These departments cooperate with other corporate divisions to resolve socially important challenges such as human rights issues and environmental problems.

(4) CSR Activity Results and Plans

(a) Framework for CSR Activities

Every year since fiscal 2015, the Hitachi Metals Group has evaluated its activity results, set targets and measures for the upcoming fiscal year, and integrated the evaluation results into a road map. By repeating this cycle of setting and implementing road maps, the Group is continually enhancing the quality of management.

(b) Fiscal 2019 Initiative Results and Fiscal 2020 Plans

★★★ Achieved ★★ 90% achieved ★ Not achieved

Some of the FY2019 measures (planned) have been reviewed.

FY2019 Measures (Planned)	FY2019 Measures (Results)	Self-assessment	Measures Planned for FY2020
1. Recognition of Social Responsibility			
<ul style="list-style-type: none"> Seek advice on/assessment of the Company's CSR activities from outside experts (ongoing) 	<ul style="list-style-type: none"> Not implemented in FY2019. 	★	<ul style="list-style-type: none"> Seek advice on/assessment of the Company's CSR activities from outside experts (ongoing)
2. Organizational Governance			
<ul style="list-style-type: none"> Hold regular meetings regarding compliance, formulate preventative measures, and share information (ongoing) 	<ul style="list-style-type: none"> Hold compliance management meetings semiannually to analyze matters related to compliance and risks involving our businesses, formulate preventative measures, and share information 	★★★	<ul style="list-style-type: none"> Hold regular meetings regarding compliance, formulate preventative measures, and share information (ongoing)
<ul style="list-style-type: none"> Conduct compliance training at the Company and subsidiaries in Japan and overseas (ongoing) Conduct environmental education at the Head Office and each company (ongoing) Ongoing implementation of Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers 	<ul style="list-style-type: none"> Conduct compliance training (80 times at the Company and subsidiaries in Japan and overseas) Implement environmental auditor development training (twice) Conducted Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers in September and October (7,753 employees responded on a consolidated basis) 	★★★	<ul style="list-style-type: none"> Conduct compliance training at the Hitachi Metals Group (ongoing) Conduct environmental e-learning (100% of employees) and environmental auditor development training (at least once) Ongoing implementation of Hitachi Insights, the Hitachi Group employee satisfaction survey targeting all back-office workers
3. Human Rights			
<ul style="list-style-type: none"> All employees receive human rights training every three years, based on the Hitachi Metals Group Human Rights Policy, according to Hitachi Group's policies 	<ul style="list-style-type: none"> Systematically conducted human rights training throughout the entire Hitachi Metals Group (7,022 employees participated on a consolidated basis) 	★★★	<ul style="list-style-type: none"> Conduct human rights training systematically throughout the entire Hitachi Metals Group (ongoing)
4. Labor Practices			
<ul style="list-style-type: none"> Further reduce total annual working hours per back-office worker by improving operational efficiency (based on workflows, RPA, etc.) through the Back-office Operations Reform Project and measures such as increasing the ratio of annual leave taken Continue to set a target rate of 50% or more for employment diversity Set the target ratio of women in career-track positions (5%) 	<ul style="list-style-type: none"> Reduced total annual working hours per back-office worker by 54 hours from the previous year and increased the number of days of annual leave taken by 2.0 days through the implementation of the "work style reform" project, and saw the number of employees using telecommuting increasing greatly due to the COVID-19 pandemic. At 38%, fell short of the employment diversity target rate At 5.1% (up by 0.4% from the previous year), achieved the target ratio of women in career-track positions 	★★★	<ul style="list-style-type: none"> Further improve operational efficiency (based on workflows, RPA, etc.) through the Back-office Operations Reform Project and consider new work styles bearing in mind a society that coexists with COVID-19 and post-COVID society. Continue to set a target rate of 50% or more for employment diversity Continue to set the target ratio of women in career-track positions (5%)
<ul style="list-style-type: none"> Formulate an action plan integrating the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace, and continue to proactively disclose related figures to the public Increase the ratio of women in management positions Continue to hold Hitachi Metals Women's Forums for information exchange between women in career-track positions and strengthen coordination among them 	<ul style="list-style-type: none"> Formulate an integrated action plan and announced it to the public. Related figures were also disclosed as widely as possible Selected as "Nadeshiko Brand" in fiscal 2019 The ratio of women in management positions: 1.4% Held a Hitachi Metals Women's Forum, a networking event targeting all women in career-track positions 	★★★	<ul style="list-style-type: none"> Formulate an action plan integrating the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace, and continue to proactively disclose related figures to the public Increase the ratio of women in management positions Continue to hold Hitachi Metals Women's Forums for information exchange between women in career-track positions and strengthen coordination among them
<ul style="list-style-type: none"> Exceed the legal employment rate of employees with disabilities 	<ul style="list-style-type: none"> The actual figure for FY2019 was 2.26%, achieving the target 	★★★	<ul style="list-style-type: none"> Exceed the legal employment rate of 2.2%

4. Labor Practices			
<ul style="list-style-type: none"> Confirm activities regarding Hitachi Metals Group's key health and safety measures, as well as the state of legal compliance through health and safety audits of business offices, and implement health and safety training for supervisors Conduct stress checks throughout the Hitachi Metals Group and enhance feedback Take measures for health management Prepare for the launch of the Hitachi Group accident investigation system 	<ul style="list-style-type: none"> Conducted safety and health audits at 12 business offices in Japan. Confirmed mainly on-site work and chemical substance management status, and provided guidance Continued to conduct stress checks and result feedback throughout the Hitachi Metals Group Promoted measures against secondhand smoking as a measure for health management, establishing smoking areas and launching measures such as designated smoking times Prepared for the launch of the Hitachi Group accident investigation system and held explanatory workshops on the system 	★★★	<ul style="list-style-type: none"> Confirm activities regarding Hitachi Metals Group's key health and safety measures, as well as the state of legal compliance through health and safety audits of business offices, and implement health and safety training for supervisors (ongoing) Conduct stress checks throughout the Hitachi Metals Group and enhance feedback (ongoing) Enhance measures for health management (ongoing) Full-scale operation of Hitachi Group accident investigation system (strengthening disaster analysis and countermeasures)
<ul style="list-style-type: none"> Send individuals selected from among those at the general manager level to external training for executives Conduct training of individuals selected from among those at the manager level to develop global leaders In addition to securing a determined number of human resources by hiring new graduates, continue to conduct midcareer hiring in the interest of personnel rotation and adjusting the age composition 	<ul style="list-style-type: none"> Reduced the number of individuals who were selected from among those at the general manager level and sent them to external training for executives. Conduct training of individuals selected from among those at the manager level to develop global leaders Continued to conduct midcareer hiring proactively, in addition to securing human resources by hiring new graduates 	★★	<ul style="list-style-type: none"> Continue to send individuals selected from among those at the general manager level to external training for executives Continue to conduct training of individuals selected from among those at the manager level to develop global leaders Secure a determined number of human resources by hiring new graduates
5. The Environment			
<ul style="list-style-type: none"> Increase the sales ratio of key environmentally conscious products¹ (23%) 	<ul style="list-style-type: none"> Increased the sales ratio of key environmentally conscious products (20.2%) 	★	<ul style="list-style-type: none"> Increase the sales ratio of key environmentally conscious products (24%)
<ul style="list-style-type: none"> Reduce CO₂ emissions per production unit (5% compared to base year FY2010) 	<ul style="list-style-type: none"> Reduced CO₂ emissions per production unit (1.4% compared to base year FY2010) 	★	<ul style="list-style-type: none"> Reduce CO₂ emissions per production unit (6% compared to base year FY2010)
<ul style="list-style-type: none"> Reduce the ratio of waste and valuables generation per production unit (12% compared to base year FY2010) Waste landfill rate (14%) 	<ul style="list-style-type: none"> Reduced active mass per production unit of waste/valuables generation (17% compared to base year FY2010) Waste landfill rate (13.7%) 	★★★	<ul style="list-style-type: none"> Reduce the ratio of waste and valuables generation per production unit (13% compared to base year FY2010) Waste landfill rate (13%)
<ul style="list-style-type: none"> Reduce the ratio of chemical substance emissions per production unit (26% compared to base year FY2010) 	<ul style="list-style-type: none"> Reduced the ratio of chemical substance emissions per production unit (23% compared to base year FY2010) 	★	<ul style="list-style-type: none"> Reduce the ratio of chemical substance emissions per production unit (27% compared to base year FY2010)
6. Fair Operating Practices			
<ul style="list-style-type: none"> Continue to conduct audits related to compliance (including compliance with the Anti-Monopoly Act) 	<ul style="list-style-type: none"> Accompanied internal audits done by the Auditing Office and conducted compliance audits 	★★	<ul style="list-style-type: none"> Continue to conduct audits related to compliance (including compliance with the Anti-Monopoly Act)
<ul style="list-style-type: none"> Survey the status of CSR efforts by the Company's suppliers based on the Hitachi Group's CSR Procurement Guidelines 	<ul style="list-style-type: none"> Shared issues with suppliers based on the results of surveys conducted in accordance with the Hitachi Metals Group Supply Chain CSR Procurement Guidelines, using the CSR Procurement Check Sheet 	★★★	<ul style="list-style-type: none"> Raise awareness of the Hitachi Metals Group Supply Chain CSR Procurement Guidelines and continue to address issues
FY2019 Measures (Planned) <ul style="list-style-type: none"> Raise awareness of the Hitachi Metals Group Supply Chain CSR Procurement Guidelines and continue to address issues 	FY2019 Measures (Results) <ul style="list-style-type: none"> The Hitachi Group conducted a survey on the status of compliance with the CSR Guidelines for suppliers in China and North America. 	★★★	Measures Planned for FY2020 <ul style="list-style-type: none"> Disseminate the CSR Guidelines to suppliers not only in the countries and regions described at left, but also in the Asia and European regions, and conduct a survey on the status of compliance with the CSR Guidelines for suppliers in the above countries and regions

<ul style="list-style-type: none"> Conduct information security education (ongoing) Conduct information security self-audits (ongoing) Make an online pledge not to retain business information on privately-owned computers Conduct targeted e-mail attack simulations (ongoing) Implement measures against the sending of e-mails to unintended recipients (ongoing) Comply with personal information protection laws in relevant countries, including the EU General Data Protection Regulation (GDPR) 	<ul style="list-style-type: none"> Conducted information security education Conducted information security self-audits Made an online pledge not to retain business information on privately-owned computers Conducted targeted e-mail attack simulations Implement measures against the sending of e-mails to unintended recipients (ongoing) Comply with personal information protection laws in relevant countries, including the EU General Data Protection Regulation (GDPR) 	★★★	<ul style="list-style-type: none"> Conduct information security education (ongoing) Conduct information security self-audits (ongoing) Make an online pledge not to retain business information on privately-owned computers (ongoing) Conduct targeted e-mail attack simulations (ongoing) Implement measures against the sending of e-mails to unintended recipients (ongoing) Comply with personal information protection laws in relevant countries, including the EU General Data Protection Regulation (GDPR) (ongoing)
7. Customers (Consumer Issues)			
<ul style="list-style-type: none"> Implement tasks for the creation of new business and select ongoing themes Process research (develop industrial technologies using AI and robotics) Promote cooperation and collaboration with customers and research institutions in Japan and overseas (expand open innovation) 	<ul style="list-style-type: none"> Implemented tasks for the creation of new business (13 themes ongoing, 4 themes completed) Process research (promoted development of advanced inspection equipment, etc., using AI and robotics) Promoted cooperation and collaboration with customers and research institutions in Japan and overseas (conducted joint research with institutions in Japan and overseas and developed energy-saving products and technologies) 	★★★	<ul style="list-style-type: none"> Create new products/businesses that can contribute to a sustainable society (implement tasks in companywide research themes and select themes) Process research (promote development of industrial technologies using AI and robotics) Promote cooperation and collaboration with customers and research institutions in Japan and overseas (expand open innovation)
8. Community Involvement and Development			
<ul style="list-style-type: none"> Consider social contribution activities enabling a closer relationship with regional citizens and culture (ongoing) 	<ul style="list-style-type: none"> Conducted regional contribution activities mainly in regions where offices and factories are located (social contributions amounted to 150 million yen) 	★★★	<ul style="list-style-type: none"> Consider social contribution activities enabling a closer relationship with regional citizens and culture (ongoing)
<ul style="list-style-type: none"> Contribute to material science technical research through the support of Hitachi Metals' Materials Science Foundation (ongoing) Support <i>tatara</i> method of iron manufacture (ongoing) 	<ul style="list-style-type: none"> Contributed to material science technical research through support of Hitachi Metals' Materials Science Foundation Supported <i>tatara</i> method of iron manufacture (operations and personnel) conducted by the Society for Preservation of Japanese Art Swords at Nittoho Tatara in Okuizumo, Shimane Prefecture 	★★★	<ul style="list-style-type: none"> Contribute to material science technical research through the support of Hitachi Metals' Materials Science Foundation (ongoing) Support <i>tatara</i> method of iron manufacture (ongoing)
9. Review and Improvement of CSR Activities			
<ul style="list-style-type: none"> Improve management quality using CSR research (ongoing) 	<ul style="list-style-type: none"> Feedback on the scoring results of the CSR survey to related departments. Based on the results, each department implemented measures to improve management quality. 	★★★	<ul style="list-style-type: none"> Improve management quality using CSR research (ongoing)
<ul style="list-style-type: none"> Develop activities conforming to international standards for CSR and to requests from various research and assessment institutions (ongoing) Improve responses to the Carbon Disclosure Project (CDP)² 	<ul style="list-style-type: none"> Applied a PDCA cycle to CSR activity issues based on ISO 26000, social responsibility guidance of the International Standard for Organization (ISO) Improved scope of disclosure in accordance with sustainability reporting international guideline GRI Standards Responded to the Carbon Disclosure Project (CDP) 	★★★	<ul style="list-style-type: none"> Develop activities conforming to international standards for CSR and to requests from various research and assessment institutions (ongoing) Improve responses to the Carbon Disclosure Project (CDP) (ongoing)

*1. Products that are targeted for growth based on a management strategy and that make a significant contribution to resolving environmental issues such as climate change and resource recycling

*2. This project is promoted through collaboration among institutional investors and calls for information about climate change from major corporations

(5) Economic Performance

(a) Direct Economic Value Generated and Distributed

Please refer to the following pages.

WEB Financial closing information

<http://www.hitachi-metals.co.jp/ir/library/ifrs.html>

Social Contribution Activities V. Report on social aspects³. In Cooperation with Society and the
Local Community⁽²⁾ Our Social Contribution Activities in Fiscal 2019
Environmental Accounting VI. Report on Environmental Aspects 1. Environmental management⁽⁵⁾
Environmental Accounting

2. Compliance

(1) Basic Approach

To foster a deeper understanding of compliance, the Company has prepared and distributed the CSR Guidebook to all officers and employees of the Hitachi Metals Group, and provides compliance education in both lecture and e-learning formats on a regular basis. In addition, the Company has set October of each year as Corporate Ethics Month, and holds compliance lectures delivered by outside instructors, primarily for employees in management-level positions, as well as various other events to cultivate an awareness of compliance.

To ensure more thorough compliance, ongoing improvement activities were carried out by the corporate division at the Company and Group companies in Japan and overseas with regard to tasks to be addressed to prevent the occurrence of inappropriate issues.

(2) Compliance Education Activities

(a) Hitachi Metals Group Corporate Ethics Month

To thoroughly instill compliance, we designated October as the Hitachi Metals Group Corporate Ethics Month, as in past years, and carried out the following measures, in addition to conducting compliance training.

- i) The President prepared the “President’s Message for the Hitachi Metals Group Corporate Ethics Month” in his own words, calling for adherence to compliance. The message was simultaneously distributed to Group employees in Japan who have a Group e-mail address.
- ii) We held compliance lectures (led by outside instructors) for those in management-level positions.
(Targets were executive officers and other management members, and general managers working at the head office or regional offices.)
- iii) We distributed workplace compliance education materials for use in the workplace during morning assemblies and monthly meetings.
- iv) All employees checked their own compliance based on a check sheet regarding compliance awareness and measures taken.
- v) The Group companies conducted self-audits of their compliance.

(c) Compliance Training

Each year, the compliance department conducts compliance training for officers and employees of the Hitachi Metals Group. This training covers compliance with the Code of Conduct and the Antimonopoly Act, prevention of acts of bribery, and prevention of transactions with antisocial forces. Training related to compliance was included in the curriculum for new employees and in education for specific levels and positions, etc.

Ordinance number	Type	Substance	Target employees
0.1	Education for all members	Compliance training	Hitachi Metals Group employees
2		Compliance lectures for employees in management-level positions (led by outside instructors)	Executive officers and general managers working at the head office or <u>regional offices</u>
3		Hitachi Group compliance e-learning	Managers and professionals
4	Education for new employees	Training for new hires	New hires
5	Education for midcareer hires	Training for midcareer hires	Midcareer hires
6		Training for newly promoted managers	Newly promoted line managers
7		Training for employees on overseas assignments	Employees on overseas assignments

(3) Compliance Audits

(a) Compliance Audits

The Internal Auditing Office conducted internal audits of all of its offices. The compliance department joins this audit activity in order to conduct compliance audits to check whether there is any suspicion of practices that violate either laws or company rules.

(4) Export Controls

In its Code of Conduct, Hitachi Metals sets “Obey the law and walk the path of virtue” as the basis of its actions. Accordingly, our basic policy on export controls is to “Strictly observe export-related laws and contribute to the maintenance of international peace and security,” and under this policy, we formulated and resolutely apply a compliance program that includes Rules on Security Export Controls. Specifically, we scrutinize the destination countries and regions, applications, and customers of all exported goods and technologies as we perform procedures on the basis of relevant laws. We guide global Group companies in enacting export control rules and establishing systems to ensure that they control exports appropriately, in line with the policy. We also provide educational assistance and perform internal audits.

Hitachi Metals will make exhaustive efforts to carry out our social responsibility for the maintenance of international peace and security in the future.

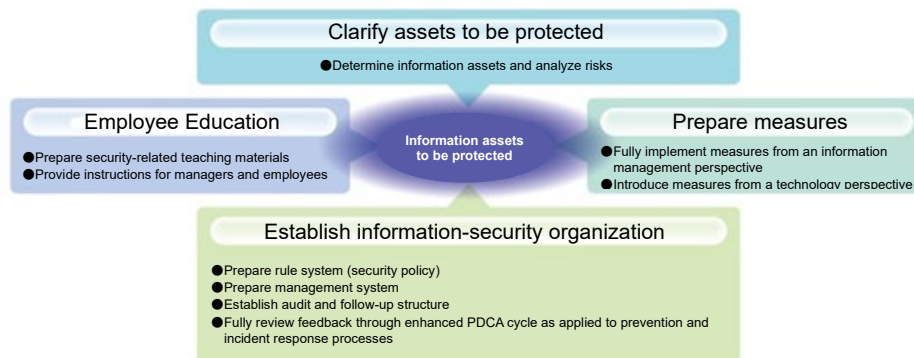
In fiscal 2019, the Hitachi Metals Group committed no major violations of export controls.

3. Information Protection and Management

(1) Basic Approach

The evolution and spread of IT, particularly in the form of the Internet and social networking services (SNSs), have resulted in an expanded litany of security risks. Managing and protecting corporate information, including personal information, is more important than ever as a corporate social responsibility. The Hitachi Metals Group established a “Basic Policy of Information Security” in April 2004, followed by a “Personal Information Protection Policy” in January 2005, establishing an organization of personal information protection/information security based on these policies. The Company has continued to update information security measures in line with these policies.

Basic concept of information asset protection >>



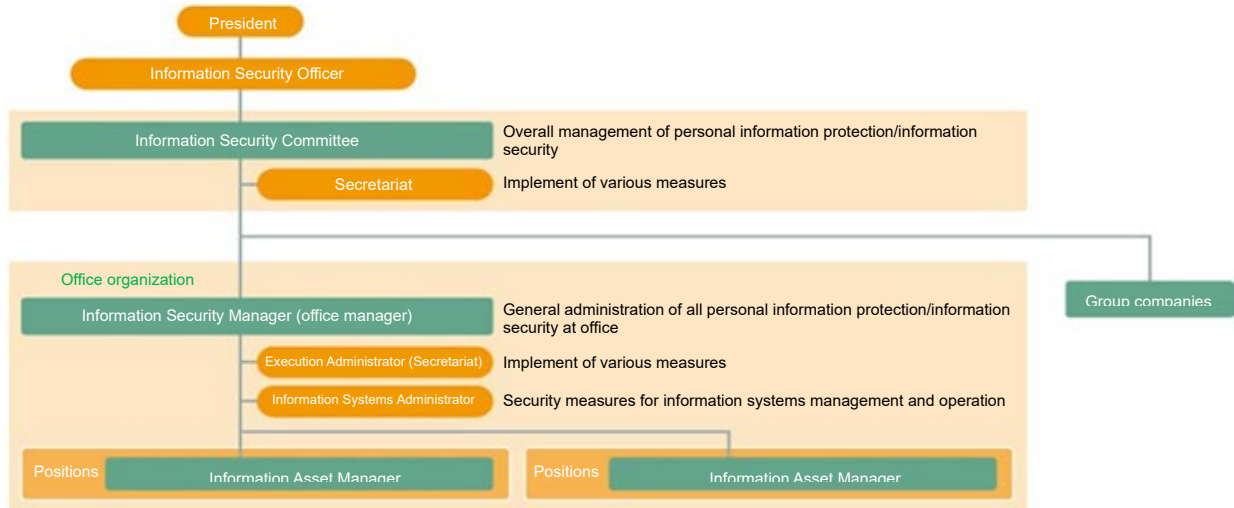
In January 2016, private companies along with local governments and other organizations across Japan began using the My Number system, a social security and tax information system for individuals. At corporations, human resources and general administration departments deal with employees' My Number information, legal departments handle shareholders' My Number information, and procurement departments collect My Number data on sole proprietors. Consequently, the My Number launch precipitated the need to amend personal information protection policy along with regulations on management of personal information as well as peripheral rules, detailed regulations, guidelines, and other administrative formalities. However, personal information, including that of the My Number system, is a valuable asset that companies must manage and safeguard. To date, Hitachi Metals has applied a two-pillared approach—rules pertaining to information security that hinged on basic policy for information security and rules pertaining to management of personal information that hinged on personal information protection policy. Two corporate structures—the Personal Information Protection Committee and the Information Security Committee—worked as one to expediently promote measures. Consequently, the introduction of My Number provided an opportunity to implement a system with a single set of rules and to integrate the corporate structures as well.

In December 2015, Hitachi Metals unified existing rules related to information security and rules related to management of personal information along with rules related to the handling of confidential documents, and then merged them into rules related to information security, which are the mainstay of information security management rules.

Hitachi Metals' efforts to enhance information security are driven by four considerations: 1) establish an information security organization, 2) clarify assets to be protected, 3) educate employees, and 4) maintain various security measures. The Company works steadily to implement steps to achieve each one. Particular emphasis, however, is placed on prevention, responding quickly if a situation arises, heightening employees' sense of ethics, and making them more security conscious. In addition, Hitachi, Ltd. leads the Hitachi Group, of which Hitachi Metals is a part, in promoting information security management and working toward a higher level of security throughout the wider group organization.

(2) Promotion Organization

Following the integration of related rules in December 2015, the Personal Information Protection Committee and the Information Security Committee were reorganized into a new Information Security Committee.



(3) Information System Security Measures

Hitachi Metals has systematically implemented measures against external risks such as targeted attacks and other unauthorized access and computer viruses, internal risks such as the unauthorized removal, loss, or theft of company information or the sending of e-mails to unintended recipients, and other risks including natural disasters, etc.

Since fiscal 2006, the Company has been continuously inspecting the personal computers of employees who have a Group e-mail address to find and delete business information, and this was done again in fiscal 2019. At the same time, the Company instructed its employees submit, through the website, a written pledge not to retain business information in personal computers and other devices which they own. Since fiscal 2007, the Company has also requested that its business partners deploy equivalent measures to prevent leaks of business information from personal computers owned by their employees. Since fiscal 2009, we have introduced a filtering system to monitor all e-mails sent externally to prevent external leaks of business information. Further efforts have also been made to enhance measures preventing information leaks, such as reviewing and improving our management system for portable information terminals to prevent losses of increasingly capable mobile phones, smartphones, and other devices. In addition, as a countermeasure against the sending of e-mails to unintended recipients, erroneous transmission prevention software has been installed on all business PCs of the Hitachi Group.

Despite these measures, in the Hitachi Metals Group in fiscal 2019, mobile computers, mobile phones, and other devices were reported lost or stolen, and some e-mails were sent to unintended recipients. Nevertheless, there were no incidents involving breach of customer privacy or leaked customer information.

(4) Employee Education

Each year, the Company provides information security education for all employees (including temporary staff, etc.) who use IT equipment. This education is designed to instill an understanding of rules related to the use of IT equipment, including the handling of information (including personal information) and the prohibition against using personal computers for work. During fiscal 2019, the Company conducted on-site training at Hitachi Metals Group locations (simultaneously with compliance training) and training using simulated e-mails about targeted attacks, as a means of countering targeted attacks on corporate information from outside the Company. Both initiatives were designed to improve the security awareness of every Hitachi Metals Group employee.

	On-site training at global offices	Training using simulated e-mails about targeted attacks
Implementation timing	September 2019–March 2020	February–March 2020
Target	Hitachi Metals Group employees	Employees at business offices connected to the Hitachi Metals Group network

(5) Self-audit

Each year, the Company conducts a self-audit of personal information protection/information security, confirming the status of the rules compliance, and improving any areas that need to be addressed. Our fiscal 2019 audit was performed between January and March 2020.

(6) Protection and Respect for Intellectual Property

Hitachi Metals practices the principle set forth in its code of conduct that reads: “We will protect our own intellectual property, respect third-party intellectual property, and use both effectively for smooth business operations.”

Specifically, to appropriately protect and effectively apply intellectual property created in such processes as research, development, and manufacturing, Hitachi Metals acquires the rights to inventions and ideas devised by employees in the course of their work, in accordance with the Company’s rules, which have been established through legally stipulated procedures. With the global expansion of our business, we acquire and maintain the rights to these inventions and ideas as intellectual property rights inside and outside Japan, forming assets that will support the sustainable growth of the Hitachi Metals Group. We take appropriate action against infringements of our own intellectual property rights, including exercise of our rights through legal action.

At the same time, we strive to prevent infringements of the intellectual property rights of others and smoothly advance our business. To that end, we investigate the intellectual property rights of others globally, in advance of all stages of research, development, design, etc., for new products and technologies, in accordance with Hitachi Metals rules. If that investigation reveals a need to use the intellectual property rights of others, we acquire licenses.

We also provide our employees with ongoing education and training about intellectual property, to instill awareness of the protection and respect of our intellectual property rights and those of others.

4. Respect for Human Rights and Compliance with International Norms

The Hitachi Metals Group stipulates respect for human rights in both the Hitachi Metals Group Code of Conduct and the supplementary Hitachi Metals Group Human Rights Policy. Our basic stance is to respect and work to refrain from infringing on the rights of all persons involved in our business operations. In December 2013, the Hitachi Metals Group formulated the Hitachi Metals Group Human Rights Policy. This Policy recognizes the human rights stated in the International Bill of Human Rights and the ILO (International Labour Organization) Declaration on Fundamental Principles and Rights at Work as the minimum levels of these rights. Our policy clearly states that the Hitachi Metals Group pursues measures to observe the international principles of human rights. Specifically, we will implement human rights due diligence and appropriate education based on the UN Guiding Principles on Business and Human Rights, while strictly observing the laws of the regions and countries in which we do business. We put the Hitachi Metals Group Human Rights Policy into practice, and are continuously working on initiatives such as raising the awareness of our officers and employees, and establishing hotlines to promote the creation of a corporate culture in which human rights abuses do not occur.

We regularly utilize e-learning to conduct human rights education and training at each employee level, in order to systematically raise awareness of human rights (with a total of 7,022 employees, on a consolidated basis, receiving human rights-related training in fiscal 2019). In addition, we have established various harassment hotlines, in order to incorporate the Hitachi Metals Group Human Rights Policy into all of our activities.

As our business activities expand rapidly on a global basis, we will continue to enhance human rights awareness and support measures to prevent the occurrence of human rights abuses based on differences in religion or nationality, the presence or absence of disabilities, gender, or other factors.

V. Report on social aspects

1. Together with Our Suppliers

(1) Basic Policy of CSR Procurement

Based on the Corporate Creed of contributing to society by being “the best enterprise,” Hitachi Metals has formulated its procurement policy to outline its basic concepts regarding material procurement, and published this policy on its website. As our business progresses globally, we share this procurement policy among all of the companies in the Hitachi Metals Group, in order to encourage them to contribute to society through their own business activities. We will continue striving to comply with laws and regulations as well as social norms, and to fulfill our social responsibility with consideration for human rights and the environment, while building a fair and impartial business culture based on relationships of trust with our suppliers.

Procurement Policy

Basic Concept of Material Procurement

- **Open, global procurement**

We procure materials from suppliers regardless of their nationality, size, and performance based on the principle of free competition.

- **Fair, clean trading**

We select suppliers on a fair and equitable basis according to their economic rationality such as quality, prices, delivery time, technologies, the credibility of management and services.

We never receive any personal gifts or offers from them.

- **Maintain partnerships**

We cultivate fair business relations with all of our suppliers on an equal footing.

We constantly strive to deepen mutual understanding and trust, and aim to achieve growth, development, and a working partnership with them from a long-term perspective.

- **Comply with laws**

We conduct procurement activities in compliance with applicable laws and regulations as well as social norms.

We are determined not to have any relations with antisocial forces that threaten the order and safety of civil society.

- **Take human rights, occupational safety, and health into consideration**

We take special care to ensure human rights, occupational safety, and health in our procurement activities.

We also ask our suppliers to make the same efforts.

- **Maintain confidentiality**

We treat all confidential information of our suppliers obtained through procurement activities as being strictly private and confidential, by using the same degree of care we use to safeguard our own proprietary information. We do not disclose their information to a third party nor use it for purposes other than the original intent without their prior consent.

- **Preserve the environment**

We give priority to suppliers who positively work on environmental preservation as well as to environmentally friendly materials and components.

(a) Issuance of the Hitachi Metals Group Supply Chain CSR Procurement Guideline

Hitachi Metals revised the Hitachi Metals Group Supply Chain CSR Procurement Guideline in May 2017 and published the revised version on its website. The Guideline encompasses a wide range of CSR concepts recognized as a company's social responsibility, including respect for human rights, consideration of the environment, fair trading and ethics, occupational health and safety, product quality and safety, information security, and social contributions. In addition, the Guideline includes a rule that requires correction when a clear violation is discovered. In fiscal 2018, we distributed our CSR Procurement Guideline and checklist to major suppliers (excluding Hitachi Group companies) accounting for 80% of the transaction amounts by business offices and affiliates in Japan, and confirmed the compliance of each. In fiscal 2019, we started sending and collecting check sheets for the CSR Procurement Guideline to our business partners in North America and China to increase awareness regarding the Guideline and to grasp issues. When starting new business relationships, we request compliance with the Guideline, and at the same time conduct corporate surveys regarding bribery risks based on the Hitachi Metals Global Compliance Program (HMGCP) to promote the strengthening of supplier reviews.

WEB Supply Chain CSR Procurement Guideline

https://www.hitachi-metals.co.jp/e/corp/corp11_04.html

(b) Compliance

Acquiring knowledge of laws, regulations, and accurate business knowledge is of utmost importance in conducting procurement transactions. We regularly assemble the staffs at the procurement departments of business offices to provide seminars and study meetings to increase their awareness of laws and internal regulations. In addition to these activities, in fiscal 2019, we put together a list of the problems which had been pointed out during past internal audits and conducted mutual audits at all business offices and Group companies in Japan. We annually instruct auditors dispatched from the Head Office and other business offices to conduct such practical mutual audits to further improve the quality of our management levels. The staffs of the procurement departments are continuously working on improving operations.

(c) Green Purchasing

In 1998, Hitachi Metals created its Green Procurement Guidelines in order to share our approach to environmental consciousness with our suppliers, including the prevention of climate change, recycling of resources, and conservation of biodiversity and ecosystems. Since then, we have revised these Guidelines repeatedly in response to the latest laws and regulations including those related to chemicals. We have notified our suppliers of the details of these revisions. We work to comply with laws and regulations, respond to customer demands, and reduce environmental impacts (conserving resources, saving energy, recycling, and appropriate management of chemical substances contained in products) by regularly sharing the latest information.

(d) Procurement BCP Initiatives

Hitachi Metals seeks to enhance its risk preparedness in the face of earthquakes, wind and flood damage, and other natural disasters, as well as new strains of influenza, fires, electrical outages, and other factors that could halt its business. For this reason, we engage in procurement BCP activities. We are working to minimize procurement risks by promoting procurement protection measures, such as diversifying our sources of procurement while asking our suppliers to establish their own BCP measures.

(2) Response to Globalization

The Hitachi Metals Group strives to establish a global procurement network across Europe, North America, and Asia, while expanding its procurement base. We are working to support the optimization of procurement activities overall and reinforcement of monozukuri, while enhancing CSR risk management and increasing concentration and consolidation of purchasing across the Group. We have also set up Global Procurement Offices (GPOs) in four locations—Europe, the United States, Asia, and China—tasked with seeking out excellent suppliers with a focus on carrying out transparent procurement activities with optimal suppliers worldwide. In fiscal 2019, we started measures to strengthen governance which involve GPOs periodically conducting an audit on each overseas Group company that is based on the procurement standards common to overseas Group companies.

In addition, the Hitachi Metals Group is working on responsible mineral procurement. We seek to make the supply chain transparent in response to the conflict mineral problem—an issue raising concerns of a serious human rights violation. The Group is conducting a survey to identify the country of origin and smelter of minerals. We strive to carry out responsible procurement activities, requiring our suppliers to procure from conflict-free smelters (CFSs)* that are certified as not using conflict minerals.

* CFS (conflict-free smelter): A smelter that is certified as having no involvement in regional conflicts by the Responsible Minerals Initiative (RMI), established by RBA/GeSI.

2. In Cooperation with Society and the Local Community

(1) Basic Approach

The Hitachi Metals Group pursues social contribution activities in fields such as sports promotion, environmental protection, social welfare, arts and culture, community activities, and support for disasters, to bring progress to communities around the world where the Group is active. We also work together with social welfare organizations and educational institutions to gain a sense of what communities want from the Hitachi Metals Group as we carry on with our activities.

Besides social contribution activities as a company, we support volunteer activities by employees through volunteer leave and a system of volunteer awards as part of our efforts to nurture a corporate culture that helps create a better society.

Hitachi Metals' characteristic social contribution activities include support for Japan's research into materials science and technology by supporting the Hitachi Metals' Materials Science Foundation, which was established largely with funds willed by Dr. Kakunosuke Miyashita (a former Hitachi Metals vice president). We also contribute to the preservation of Japan's traditional culture through our work with the operations of Nittoho Tatara, which was revived in 1977 by the Society for Preservation of Japanese Art Swords.

(2) Our Social Contribution Activities in Fiscal 2019

In fiscal 2019, the Hitachi Metals Group made social contributions including staging events such as sports competitions, environmental protection activities, welcoming tours of our plants, and making donations. The total expenditure was equivalent to 150 million yen.* The main content of our contribution activities is as follows:

*This figure includes the calculated equivalent values of employees and company facilities required for activities.

	Category and description of activity	Company name and business office name
Social welfare	Donation of wheelchairs, etc. to social welfare councils and social welfare facilities	Hitachi Metals head office
	Central Community Chest of Japan, Year-End Mutual Aid Fund	Hitachi Metals and domestic Group companies
	Cooperation in blood donation activities	Hitachi Metals, Ltd. and global Group companies
	Made donations, mainly of food, clothing, blankets, and toys, to low-income families through charitable organizations. Made donations to welfare organizations. ¹	Hitachi Metals and Waupaca Foundry, Inc. Hitachi Metals America, LLC. Hitachi Cable America, Inc. Namyang Metals Co., Ltd.
	Support for pediatric cancer groups and pediatric hospitals	Hitachi Metals America, LLC. Hitachi Cable America, Inc. Waupaca Foundry, Inc. HC Queretaro, S.A. de C.V.
	Donated to local support services facilities (hospitals, childcare center, and fire station)	Waupaca Foundry, Inc. Hitachi Cable America, Inc.
	Supported cancer foundations and participated in associated events	Waupaca Foundry, Inc. Hitachi Cable America, Inc. HC Queretaro, S.A. de C.V.
	Protection activities for animal shelters	Hitachi Cable America, Inc.
	Sponsored activities of the local food bank (for providing free meals to low-income people and others)	Hitachi Metals America, LLC. Hitachi Cable America, Inc.
	Christmas gifts for low-income children ²	Hitachi Metals America, LLC. Hitachi Cable America, Inc. Waupaca Foundry, Inc. Hitachi Metals North Carolina, Ltd.
	Offered food and gifts to children with disabilities	Hitachi Cable Vietnam Co., Ltd.
	Scholarship support for local students	Waupaca Foundry, Inc. Namyang Metals Co., Ltd.
	Supported low-income students	Namyang Metals Co., Ltd.
	Participation in anti-violence against women events	San Technology, Inc.

	Supported welfare facilities for the elderly, people with disabilities, and children	Pacific Metals Co., Ltd. Hitachi Metals North Carolina, Ltd. San Technology, Inc. HC Queretaro, S.A. de C.V.
Health, medicine, sports	Became a sponsor of the Tokyo 2020 Olympic and Paralympic Games	Electric Wire & Cable Business Unit, Casting and Rolling Production Dept., Advanced Components & Materials Division,
	Organized the Wakamatsu Junior High School Rubber Baseball Tournament ³	Hitachi Metals Wakamatsu, Ltd.
	Organized the Junior High School Goodwill Sporting Event ⁴	Yasugi Works, Hitachi Metals, Ltd.
	Organized the Wakyo-Hai Volleyball Tournament ⁵	Moka Works, Hitachi Metals, Ltd.
	Sponsored the Japan Rubber Baseball Association Kuwana Branch Junior High School Baseball Pennant Tournaments ⁶	Kuwana Works, Hitachi Metals, Ltd.
	Sponsored the Boys' Baseball Western Regional Tournament	Kuwana Works, Hitachi Metals, Ltd.
	Dispatched employees to local competitions	Various Hitachi Metals works
	Organized sports classes provided by in-house sports clubs (basketball, tennis, baseball, kendo, etc.) for elementary, junior high, and high school students	Various Hitachi Metals works and global Group companies
	Hosted the Hitachi Metals Cup Mini Basketball Tournament ⁷ in Hidaka District	Ibaraki Works, Hitachi Metals, Ltd.
	Sponsored the Hitachi Metals Cup Tottori Prefecture Junior High Volleyball Tournament ⁸	Hitachi Ferrite Electronics, Ltd.
	Supported Showa no Mori charity golf competition in Gunma Prefecture	Hitachi Metals Solutions, Ltd.
	Supported Nakaumi Marathon, a national event	Yasugi Works, Hitachi Metals, Ltd.
	Sponsored Kasumigaura Marathon	Hitachi Metals Neomaterial, Ltd.
	Sponsored a marathon organized by Ishioka City	Tonichi Kyosan Cable, Ltd.
	Support for regional sports events	Various Hitachi Metals works and global Group companies
	Offered management support to local professional soccer teams	Hitachi Metals Europe GmbH
	Donation to the Combating COVID-19 Fund	Hitachi Metals (India) Private Limited Pacific Metals Co., Ltd. Hitachi Metals Korea Co., Ltd. Baotou Santoku Battery Materials Co., Ltd.
Academic and research education	Support through Hitachi Metals' Materials Science Foundation	Electric Wire & Cable Business Unit, Casting and Rolling Production Dept., Advanced Components & Materials Division,
	Donation of education and research funds to universities	Hitachi Metals, Ltd. and global Group companies
	Science seminar projects for elementary, junior high, and high schools	Global Group companies
	Visiting lecture program and internships for local schools	Hitachi Metals, Ltd. and global Group companies
	Participated in the execution of Hitachi Science Seminars (held by the Science Museum) ⁹	Hitachi Metals head office
	Hosted factory tours by schools and other groups	Various Hitachi Metals works and global Group companies
	Provided manufacturing training in our company for local junior high school students	NEOMAX Engineering Co., Ltd.
	Dispatched employees to Wakamatsu Labor Standards Association to serve as practical skills teachers	Hitachi Metals Wakamatsu, Ltd.
	Sponsored a high school robotics competition in the U.S.	Metglas, Inc.
	Student scholarship support	Waupaca Foundry, Inc. Hitachi Cable America Inc.
	Support for local school boards for education promotion	Yasugi Works, Hitachi Metals, Ltd.
	Performance by our brass band at a local concert	Yasugi Works, Hitachi Metals, Ltd.
	Sponsored the Yasugi Knife Festival and supported a steel cutting symposium	Yasugi Works, Hitachi Metals, Ltd.
	Donation to museums and support for art festivals	Waupaca Foundry, Inc.
	Participated in the Tottori Sand Dunes Cleanup organized by Tottori City ¹⁰	Hitachi Ferrite Electronics, Ltd.

Environment	Participated in forest conservation activities (Shimane CO ₂ absorption certification system)	Yasugi Works, Hitachi Metals, Ltd.
	Coral reef conservation activities	San Technology, Inc.
	Tree planting activities	Hitachi Cable Vietnam Co., Ltd. Hitachi Metals (India) Private Limited Hitachi Cable America Inc. Ward Manufacturing, LLC
	Cleaning activities in areas near business offices	Various Hitachi Metals works and global Group companies
	Participated in cleaning activities "Cleaning Campaign" in areas near the head office" ¹¹	Hitachi Metals head office
Community activities, preservation of historical sites and traditional culture	Participated in Eco Forums in Sendai and Tagajo	Tohoku Rubber Co., Ltd.
	Participated in cleanup activities organized by the Rikyu-no-Mizu Protection Society	Yamazaki Manufacturing Dept., Hitachi Metals, Ltd.
	Supported Nittoho Tataro operations, guided operations of mini-tataro" ¹²	Yasugi Works, Hitachi Metals, Ltd. HMY, Ltd.
	Sponsored regional festivals and sporting events	Various Hitachi Metals works and global Group companies
	Operated casting museum (at Kyushu Works)	Kyushu Works, Hitachi Metals, Ltd.
Disaster area support	Donated money to Reiwa Typhoon No. 19 Disaster Donation to aid typhoon victims	Electric Wire & Cable Business Unit, Casting and Rolling Production Dept., Advanced Components & Materials Division,
Urban development and disaster prevention	"Children's 110 House" registration	Hitachi Alloy Co., Ltd.
	Participated in traffic safety and disaster prevention events	Various Hitachi Metals works and global Group companies
	Support for local fire stations	Waupaca Foundry, Inc. Ward Manufacturing, LLC San Technology, Inc.
Facility open days	Opened sports grounds, gymnasias, tennis courts, welfare facilities, parking lots, etc. to local communities	Various Hitachi Metals works and domestic Group companies
	Opened facilities to local events	Various Hitachi Metals works and domestic Group companies
Other	Sponsored Christmas light-up event	Hitachi Metals Singapore Pte. Ltd.
	Assisted in the running of "Japan Day" (Dusseldorf)	Hitachi Metals Europe GmbH
	Donation of cleaning goods to local kindergartens and elementary schools	PT. HITACHI METALS INDONESIA
	Sponsored various organizations, including the Hitachi Global Foundation	Hitachi Metals, Ltd. and global Group companies



*1. Donations of toys to low-income children (Hitachi Metals America, LLC.)



*2. Christmas gifts for low-income children (Waupaca Foundry, Inc., and other global Group companies)



*3. Organized the Wakamatsu Junior High School Rubber Baseball Tournament (Hitachi Metals Wakamatsu, Ltd.)



*4. Organized the Junior High School Goodwill Sporting Event (Yasugi Works, Hitachi Metals, Ltd.)



*5. Organized the Wakyo-Hai Volleyball Tournament (Moka Works, Hitachi Metals, Ltd.)



*6. Sponsored the Japan Rubber Baseball Association Kuwana Branch Junior High School Baseball Pennant Tournaments (Kuwana Works, Hitachi Metals, Ltd.)



*7. Hosted the Hitachi Metals Cup Mini Basketball Tournament in Hidaka District (Ibaraki Works, Hitachi Metals Ltd.)



*8. Hitachi Metals Cup Tottori Prefecture Junior High Volleyball Tournament (Hitachi Ferrite Electronics, Ltd.)



*9. Participated in the execution of Hitachi Science Seminars (Kumagaya Works, Hitachi Metals, Ltd.)



*10. Participated in the Tottori Sand Dunes Cleanup (Hitachi Ferrite Electronics, Ltd.)



*11. Participation in cleaning activities "Cleaning Campaign" in areas near the head office (Hitachi Metals head office)



*12. Guided operations of mini-tatara (Yasugi Works, Hitachi Metals, Ltd. and HMY, Ltd.)

3. Responsibility to Employees

(1) Labor and Management Relations

Hitachi Metals sincerely addresses common management-labor issues, respecting the basic rights and responsibilities of each, built on a “foundation of mutual trust.” The Company provides full explanations of management policies, business plans, management measures, etc., at various meetings, while at the same time listening to feedback from the employee union as Company management works for the rapid implementation of various corporate measures. We will advance and deepen our labor-management relations by building a labor and management structure that corresponds to the business division system and by fostering closer communication. The employee unions of the Hitachi Metals Group companies have formed a union council, using the forum to periodically exchange opinions and clarifying Group management policies and plans, enhancing mutual understanding.

(2) Promoting Diversity

Hitachi Metals considers diversity and inclusion to be important management strategies, and is pursuing various measures based on the belief that “resolutely implementing diversity management will increase corporate value.”

In particular, we are actively implementing measures to promote the participation and advancement of women in the workplace, based on our management’s firm commitment regarding this issue as an important theme in diversity promotion.

[Policy on promoting the participation and advancement of women in the workplace]

- 1) Setting targets for the ratio of women among newly hired graduates (Technical positions: 10%, administrative positions: 40%)
- 2) Enhancing support for retention (Career support, awareness-raising for those in management-level positions, networking among women in career-track positions, etc.)
- 3) Systematic promotion of female employees (Target ratio for women in management-level positions: 1.6% in fiscal 2019)

In recognition of these efforts, Hitachi Metals was selected as a fiscal 2019 “Nadeshiko Brand,” as a company that is outstanding in terms of encouraging the success of women in the workplace. We will continue working to promote diversity, and to create an environment in which all employees can participate fully.

① Promoting Employment of People with Disabilities

Regarding the hiring of people with disabilities, Hallow, Ltd. (currently, Hitachi Metals Hallow, Ltd.), a special subsidiary, was established in 1998, to support the employment of people with disabilities and help them become socially and financially independent. In addition, in 2006, Kuwana Create Co., Ltd. (currently, Hitachi Metals FineTech, Ltd.) received special government certification as a company offering employment opportunities to people with disabilities.

The Hitachi Metals Group has received high marks for these efforts, including awards from local communities. Meanwhile, HMY, Ltd. maintains a program through which supervisors themselves acquire qualification as employees of private companies who assist disabled co-workers at the job site. In addition, HMY has a history of actively hiring people with disabilities through job centers, independent living support centers, special needs schools, and “Hello Work” Public Employment Security Offices. In fiscal 2019, the employment ratio of people with disabilities for Hitachi Metals (non-consolidated) in Japan was 2.26%, exceeding the legally required ratio of 2.2%. We plan to continue working to further expand employment throughout the Hitachi Metals Group.

(b) The Act on Advancement of Measures to Support Raising Next-Generation Children, and the Act on Promotion of Women's Participation and Advancement in the Workplace

Starting from fiscal 2008, the Company has established a child allowance benefit for employees as a policy for supporting the development of the next generation, strengthening our support of employees who are raising children.

In 1992, Hitachi Metals was also one of the first companies to adopt a system to reemploy individuals who had to give up their jobs due to childbirth or home care, demonstrating once again our proactive and forward-thinking policies. With regard to leave related to child care, nursing care for the elderly, and time needed to care for someone who is sick, we have created a supportive environment that enables employees to address various family responsibilities without worrying about job security. For example, since fiscal 2018, child care leave has been extended, with a limit of three years, to the end of the month in which a child completes the first year of the elementary school, and for employees taking nursing care leave, we now provide an amount equivalent to 50% of their salary as family care leave benefits during this leave of absence. In addition, we provide employees with generous conditions in terms of the scope and period of leave that exceed the requirements under the revised Child and Family Care Leaves Act. As such, employees can take leave for a variety of reasons: nursing care, child care, or to look after their parents, spouse, same-sex partner, or the parents of their spouse or same-sex partner. Furthermore, following the introduction of the Act on Promotion of Women's Participation and Advancement in the Workplace, effective from April 1, 2016, we prepared an integrated action plan covering that Act as well as the Act on Measures to Support Raising Next-Generation Children. We have disclosed the content of this action plan, namely, initiatives over the next three years to reduce overall annual work hours in back-office departments and establish diversity-oriented hiring ratio targets.

Number of Employees Using Work-Life Balance Support Systems

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Number of employees taking child care leave	23	24	25	32	27	32
Number of employees using shorter working hours for child care	28	35	35	40	4.5	55
Number of employees taking nursing care leave	0	0.0	1	0.1	2	5
Number of employees using shorter working hours for nursing care	0	0	0.0	1	1	0.1

(3) Occupational Health and Safety

(a) Action to Eliminate Work Accidents

The safety results for the Hitachi Metals Group in 2019 revealed four accidents involving lost working time at Hitachi Metals and five such accidents in the Hitachi Metals Group in Japan. Although the number of cases decreased by five from 2018, it remained high. In particular, accidents involving inexperienced workers (with less than three years' experience) were still dominant, accounting for approximately 50% of the total, and there were also incidents that could have resulted in serious disasters if something had gone wrong. Given this situation, in 2020, we promoted occupational health and safety activities throughout the entire Group, under the slogan, "Entrench the concept of 'Safety always comes first' in the culture of the Hitachi Metals Group with all-out efforts by each employee." The key strategies in this effort are as follows: 1) Managers and supervisors investigate the workplace to ensure that safety and health management is properly maintained as well as executed; 2) carry out risk assessment with the participation of all employees to ensure that equipment and work are essentially safe, 3) promote the application of disaster cause analyses and recurrence prevention measures in other areas of the organization, and 4) strengthen health management efforts.

Frequency of Occupational Injuries

	2015	2016	2017	2018	2019
All industries	1.61	1.63	1.66	1.83	1.80
Manufacturing	1.06	1.15	1.02	1.20	1.20
Steel	0.67	0.69	0.83	1.16	0.89
Hitachi Metals Group	0.31	0.27	0.55	0.42	0.27

(b) Promoting Everyone's Mental and Physical Health

We actively support health management that promotes good mental and physical aspects of health.

To promote physical health, we recommend that all employees undertake a secondary checkup following their regular medical examination, and we focus on lifestyle diseases and other health guidance. Regarding mental health, the stress check system is implemented every year. In addition to encouraging individuals to pay attention to their own mental health, we strive to improve the work environment through Groupwide analysis of the stress check results.

(4) Human Resources Training

(a) Basic Approach

With the Corporate Creed of "contributing to society by being the best enterprise" and with the management policy of pursuing high-quality products, we aim to achieve global growth, setting forth "Building People, Building Innovation, Building the Future" as the vision of the medium-term management plan. To grow as a global company amid turbulent market conditions, we need to cultivate human resources who can constantly develop and put on the global market products that are original.

Our approach to our people is the distillation of "strength through harmony," our fundamental spirit since the inception of our company. Based on this philosophy, we continue to develop "People of action with global perceptions at Hitachi Metals" who are able to demonstrate their own personality and values through good teamwork.

Under the determination for each and every employee within the organization to be a key driver of growth, a sentiment incorporated into our communications symbol "Materials Mag!c," we support

our employees in developing their expertise so that they become an efficient workforce who can actively seek out challenges and take action to achieve success or solve problems, as well as being shining examples for the Company.

(b) Training and Education Systems

We are building a personnel education system that links three elements: OJT, a personnel system that supports OJT, and OFF-JT for training, etc. OFF-JT training, etc., in planning fields sets personnel targets and requirements based on Hitachi Metals' Corporate Creed and Corporate Philosophy, plans training to match requirements, and implements training accordingly. We have formulated a training system by global categories of management, planning/administration, technical, sales, and core business divisions.

(c) Developing the Next Generation of Human Resources

In the interest of sustainable corporate growth, we are deliberately cultivating the next generation of human resources who will take responsibility for operations on a global scale.

- **Cultivating the next generation of human resources**

We have formulated a plan for cultivating the personnel who will take responsibility for the Company in the next generation, and are conducting regular employee rotations, tough assignments, and OFF-JT training programs. We also support employees who study abroad to earn MBAs.

- **Cultivating local management personnel at each location**

At Group companies outside Japan, we are supporting efforts to cultivate locally hired personnel, with an emphasis on future executive candidates. We are also proceeding with measures to cultivate such personnel and promote them into positions of responsibility.

(5) Employee Benefits and Welfare

To make the lives of employees and their families more affluent and stable, Hitachi Metals offers a comprehensive range of measures to support them. These include housing support systems such as providing dormitories and housing allowances, as well as asset-building savings and group insurance.

As one of the employee benefits and welfare initiatives to support self-help efforts and the independence of employees, in 2003, the Company implemented the "Cafeteria Plan System" (selective benefit and welfare system). This system offers options to meet the different lifestyles and needs of individual employees such as ability and skill development, child rearing, nursing, and health development, in addition to such conventional benefits as dormitories for single employees and company-run houses and the provision of medical services for employees. Each employee can choose the type of support they desire, when necessary, based on "Cafeteria Points" they have earned.

(6) Life Plan Support

In this day of declining birthrates and an aging population, and as lifestyles in old age become more diversified, having a definitive life plan is becoming more and more important. Hitachi Metals provides information to serve as the basis for life planning after retirement (retirement benefits, company pension, welfare pension, health insurance, employment insurance, etc.) and hosts Life Plan Seminars as an opportunity to think about one's current work style and one's lifestyle after retirement.

(7) Composition of Employees

	FY2015 (As of the end of March 2016)	Annual Dividends (As of the end of March 2017)	FY2017 (As of the end of March 2018)	FY2018 (As of the end of March 2019)	FY2019 (As of the end of March 2019)
Number of employees	5,966	5,858	6,315	7,067	7,022
Male	5,339	5,241	5,654	6,227	6,215
Female	627	617	661	790	807
Ratio of female employees	10.5	10.5	10.5	11.2	11.5
Average age (years)	43.5	43.9	43.6	43.1	43.5
Average service (years)	20.6	21.0	21.0	18.4	18.8
Number of female managers	11	12	16	19	19
Employment rate of people with disabilities	2.34	2.40	2.31	2.21	2.26

4. Responsibility to Shareholders and Investors

(1) Shares and Shareholders

The total number of outstanding shares in the Company as of March 31, 2020 was 428,904,352, and there were 23,162 shareholders (including shareholders who only hold odd lots). The distribution of shares between owners is as follows:

Classification	Number of shareholders	Number of shares held (hundreds of shares)	Percentage of shares held
Financial institutions	55	615,839	14.37
Other domestic corporations	502	2,341,935	54.67
Foreign nationals	519	1,005,769	23.48
Individuals and others	19,134	289,461	6.76

1. Shares representing less than one unit are not included.
2. Treasury shares (13,375 share units) are included in "Individuals and others."

(2) Basic Policy on Profit Allocation

As customer needs and technologies evolve and globalize, we regard it as our responsibility as a company to return appropriate profits to our shareholders in the long term, by strengthening our international competitiveness and expanding corporate value. With that responsibility in mind, our basic policy is to determine profit allocations to shareholders and internal reserves with the emphasis on medium- and long-term growth, giving overall consideration to the management environment, future business expansion, and business performance.

Internal reserve funds are used to invest in the development and commercialization of new materials, the creation of new business, the increased production and streamlining of competitive products, and other applications, with a view to future business expansion. We will also acquire our own shares, where appropriate, for purposes such as enabling dynamic capital policy, taking into account the necessity of such acquisition, the financial situation, the share price level, and other factors.

(3) Information Disclosure and IR Activities

To earn trust as a highly transparent "open firm," the Hitachi Metals Group is working to enhance in-house systems to appropriately implement prompt, accurate, and fair disclosure of company information and publish information in a timely manner.

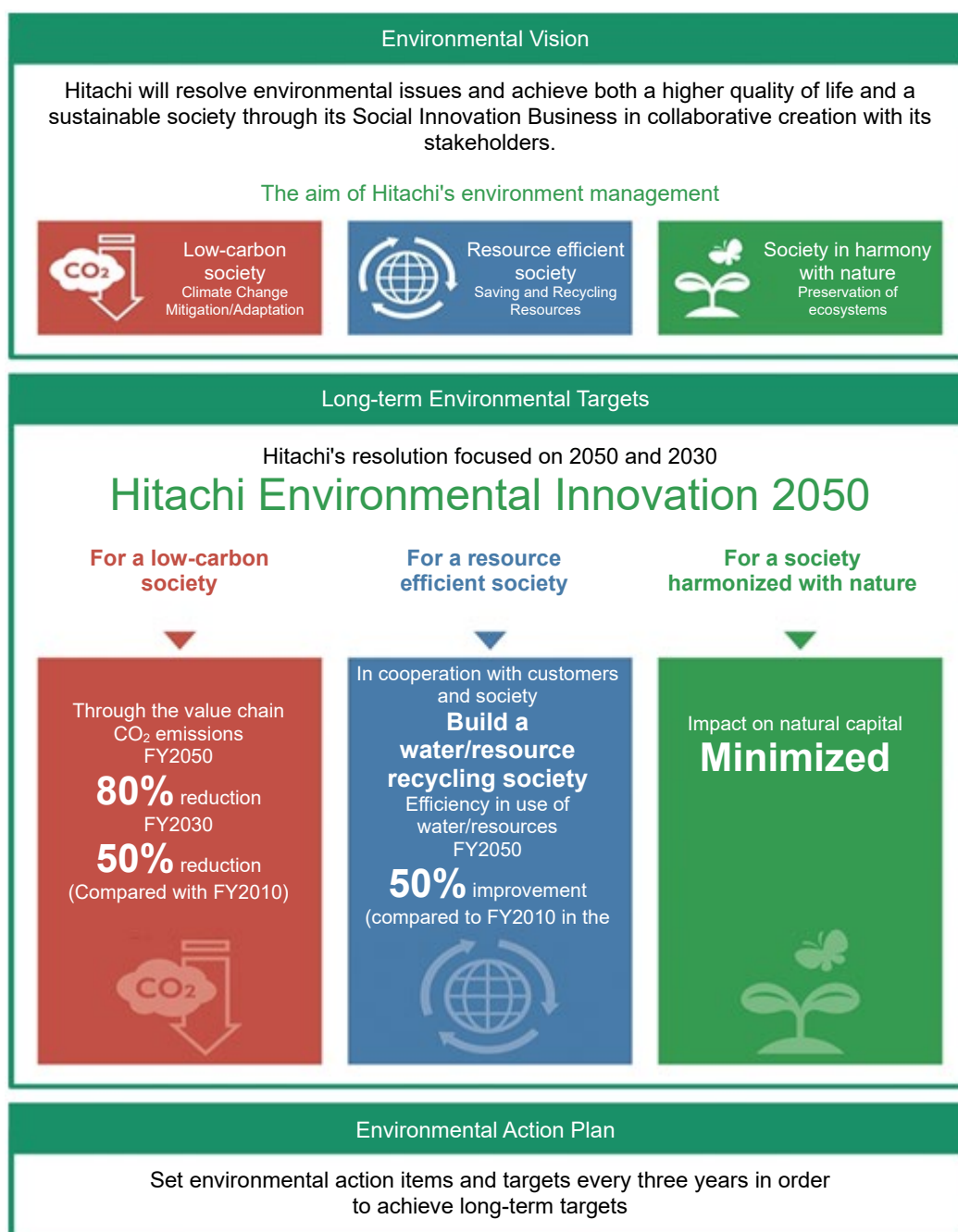
Divisions work together, centered on the Hitachi Metals Corporate Communications Department, to disclose quarterly operating and financial results information, and hold presentations including operating results briefings for institutional investors and analysts. This effort extends beyond information on operating results, and we also actively disclose information on topics by separate business and our medium-term management plans via briefings and the corporate website, etc. The Hitachi Metals Group also communicates our management policies via integrated reports, corporate websites, and numerous other communications channels.

VI. Report on Environmental Aspects

1. Environmental management

(1) The Hitachi Group's Environmental Vision

The Hitachi Metals Group promotes a “Low-Carbon Society,” “Resource Efficient Society,” and “Harmonized Society with Nature” as the three key pillars of the Hitachi Group's Environmental Vision. We aim to realize both higher quality lifestyles and a sustainable society by resolving environmental issues through the social innovation business in collaboration with our stakeholders. In addition, we will fulfill our required role to achieve Hitachi's long-term environmental targets called Hitachi Environmental Innovation 2050.



(2) Hitachi Metals Group Basic Environmental Protection Policies

Hitachi Metals Group Basic Environmental Protection Policies

Philosophy

Hitachi Metals' Corporate Creed is to "contribute to society by being the best enterprise." In line with this, we regard it as crucial to ensure that humanity's shared environmental resources can be passed down to future generations in the best possible condition. Accordingly, throughout our operations we treat environmental considerations as an issue of the highest importance and strive actively to promote environmental protection efforts on both the global and local community levels.

Slogan

- With a deep awareness that environmental protection is a major issue for all humanity, fulfill social responsibilities by striving to establish a sustainable society in harmony with the environment, regarding it as one of the essential aspects of corporate activity.
- Contribute to society by developing highly reliable technologies and products in response to needs for environmental protection and the limited nature of resources.

Business Conduct Guidelines

1. Compliance with environmental laws and regulations, and prevention of pollution

Comply with all applicable laws and regulations concerning environmental issues on all levels, from international laws to national, regional, and local pacts. Establish voluntary environmental standards as needed in order to assure compliance.

Identify potential environmental problems and take action to prevent pollution. In the event that environmental problems have happened, take appropriate countermeasures to minimize environmental impact.

2. Maintenance of environmental organizational structure and enhancement of environmental supervision

Maintain an organizational structure that includes leadership by an executive responsible for managing environmental issues, as well as an underlying administrative structure. Promote environmental protection activities by applying voluntary environmental standards and establishing clear environmental-related goals.

Additionally, strive to continually improve our environmental management through confirming that our environmental protection activities are being carried out in an adequate, effective, and proper manner.

3. Promotion of global manufacturing with consideration of LCA (Life Cycle Assessment)

Endeavor to reduce the environmental burden in the entire life cycle, including R&D, product design, manufacture, distribution, sale, use, and disposal. Promote the following as global manufacturing priorities:

1) Environment-conscious products, 2) prevention of climate change, 3) conservation and recycling of resources, 4) chemical management, and 5) conservation of biodiversity.

4. Environmental consideration at sites all over the world

Consider environmental impact in the areas around our manufacturing sites, and strive to carry out policies responsive to the requirements and needs of the local communities.

5. Education and training to increase environmental awareness

Educate and train employees about environmental protection and importance of compliance with environmental laws and regulations to raise employees' awareness of environment with a broad perspective.

6. Information disclosure

Promote positive communication through the disclosure of information regarding environmental protection activities to stakeholders, and strengthen the mutual understanding and collaborative relationship.

Formulated: April 1, 2010
Revised: December 1, 2016

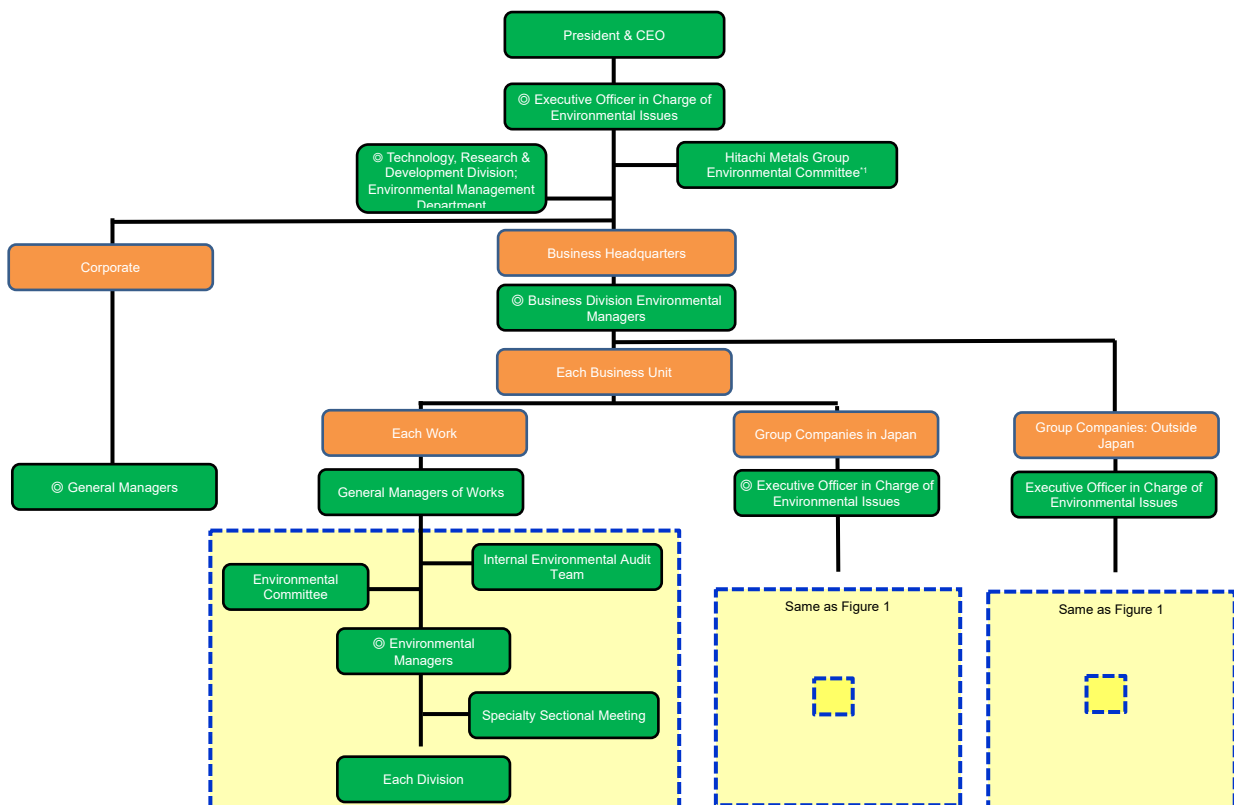
(3) The Hitachi Metals Group's Environmental Management Promotion Structure

Environmental management within the Hitachi Metals Group hinges on the Environmental Management Department, Technology, Research and Development Division, which promotes environmental management activities in cooperation with business division environmental managers appointed in the business divisions. The executive officer in charge of environmental issues at Hitachi Metals heads up the Environmental Committee.

In April 2010, we formulated the Hitachi Metals Group Basic Environmental Protection Policies, which clarify our companywide commitment to environmental management.

Especially, to advance environmental management suited to a corporation that does business globally, we strive to ensure that the basic environmental protection policies are thoroughly shared within the Hitachi Metals Group, taking into account national and regional differences. Our efforts to reduce environmental burden and our response to environmental risk are based on these shared policies. Policies and targets related to environmental activities are reviewed and revised annually at the Hitachi Metals Group Environmental Committee.

The Hitachi Metals Group Environmental Management Promotion Structure



* 1: The Hitachi Metals Group Environmental Committee is attended by the following members, marked with (©) in the above chart:
the executive officer in charge of environmental issues, environmental managers at the business divisions, the environmental managers at the offices, the general managers of corporate divisions, the executive offices in charge of environmental issues of Group companies, and the staff members of the Environmental Management Department, Technology, Research and Development Division.

(4) Fiscal 2019–Fiscal 2021 Medium-Term Environmental Action Plan and Fiscal 2019 Results

The Hitachi Metals Group's Medium-Term Environmental Action Plan for fiscal 2019 to fiscal 2021, along with results and assessments for fiscal 2019, are summarized in the table below.

		Item	Action Target	2019			2020	2021
				Target	Actual	Rating	Target	Target
Governance		Adhere to environmental compliance practices and reduce risks	Internal audit implementation rate	100%	100%	○	100%	100%
		Cultivate environmental literacy	Implement environmental auditor development training	1 End.	2	○	1 End.	1 End.
			e-learning attendance rate	100%	-*1	-*1	100%	100%
		Improve environmental activity level	GREEN21-2021	140GP	166GP	○	210GP	280GP
Low-carbon society	Products	Sales ratio of key environmentally conscious products		23%	20.2%	×	24%	25%
		Conduct environmentally conscious design assessments (20 in three years)		7	11	○	9	
	Factories	Reduce CO ₂ emissions from Works	Improvement ratio of CO ₂ emissions per production unit (vs. FY2010)	5%	1.4%	×	6%	7%
		Reduce CO ₂ emissions during transportation	Improvement ratio of energy consumption per transportation unit (vs. FY2010)	4%	-4.2%	×	5%	6%
Resource efficient society	Resource circulation	Reduce and recycle waste	Improvement in the rate of waste and valuables generated per production unit (vs. FY2010)	12%	16.6%	○	13%	14%
			Waste landfill rate*2	14%	13.7%	○	13%	12%
	Water resources	Improve water-use efficiency	Improvement rate of water usage per production unit (vs. FY2010)	22%	22.2%	○	24%	26%
Society in harmony with nature	Chemical substances	Reduce output of chemical substances	Improvement ratio of per unit rate of chemical substances released into the atmosphere	26%	22.6%	×	27%	25%
	Preservation of ecosystems	Impact on natural capital	Forest conservation activities (number of initiatives)	4	4	○	4	4
		Preservation of ecosystems	Number of ecosystem protection initiatives (accumulated total)	4	17	○	8	12
Collaboration with stakeholders	Social contribution	Community cleanup activities, Lights Down campaigns, etc.	Continue activities and reduce environmental impact in aspects other than the protection of ecosystems			○	Continue activities and reduce environmental impact in aspects other than the protection of ecosystems	

*1. Environmental e-learning is scheduled to be implemented as new general environmental education starting from FY2020 after educational methods and contents (teaching materials) are reviewed. In FY2019, e-learning was not conducted as it was under preparation.

At each business site, general environmental education is conducted as usual.

*2. Excluding household waste, hazardous waste, and in-house landfills (landfills on the Company's sites)

(5) Environmental Accounting

The Hitachi Metals Group has introduced environmental accounting to allocate corporate resources appropriately and continuously improve the efficiency of environmental investments and activities. The Group also aims to increase the understanding of its stakeholders by disclosing information about the effect and efficiency of its activities.

Environmental costs include things like environment-related capital investment, equipment maintenance and administration costs, and R&D costs.

Environmental effects include economic effects measured in monetary terms and categorized under waste processing and recycling, energy conservation, and others (R&D, recycling of products and packing materials, etc.).

The results for fiscal 2019 are as follows:

(a) Environmental Costs

Our environmental costs in fiscal 2019 were 8.24 billion yen in expenses and 3.40 billion yen in investment, for a total of 11.64 billion yen.

(b) Environmental Effects

The economic effects amounted to a total of 11.60 billion yen, primarily due to waste elimination, recycling, and energy conservation.

(c) Results of Environmental Accounting

■Environmental Costs

(100 million yen)

Cost classification			FY2018		FY2019	
			Expense	Investment	Expense	Investment
	Business area costs	Pollution prevention	16.1	1.7	14.2	4.1
		Global environmental preservation	13.8	32.3	19.3	24.1
		Resource recycling	25.1	0.6	25.6	5.6
		Subtotal	55.0	34.6	59.1	33.8
	Upstream and downstream costs	3.3	0.1	2.8	0.0	
	Management activity costs	7.0	0.0	6.3	0.1	
	Research and development costs	16.5	0.1	13.8	0.1	
	Community activity costs	0.1	0.0	0.0	0.0	
	Other	1.4	0.0	0.4	0.0	
Total			82.3	34.8	82.4	34.0

■Environmental Effects

(100 million yen)

Economic Effects	Item	FY2018	FY2019
	Waste processing and recycling	57.8	111.3
Energy conservation	1.9	1.7	
Other	3.1	3.1	
Total		62.8	116.0

- Scope of disclosure: The Hitachi Metals Group in Japan
- Calculation period: April 1, 2019, to March 31, 2020

(6) Integrated Environmental Management System (Integrated EMS*1)

The Hitachi Metals Group has introduced ISO 14001 as its environmental management system.

We began acquiring certification for individual factories in 1997, and then built integrated Environmental Management Systems (integrated EMS*1) at each segment of the Business Headquarters (specialty steel as well as functional components and equipment of the Advanced Metals Division, and magnetic materials and applications as well as wires, cables, and related products of the Advanced Components and Materials Division). This action was prompted by the increasing necessity of close links with headquarters departments in areas such as engineering, planning, and sales, to comply with product environmental regulations and expand sales of eco-products.

ISO 14001:2015, revised in September 2015, requires that environmental management be in balance with the strategic direction of business and integrated with business processes. We strove to transition to the 2015 requirements as we worked toward an integrated EMS for each segment of the Business Headquarters, and completed the transition during fiscal 2017.

Since April 2019, we have shifted to a two-division organization consisting of the Advanced Metals Division and the Advanced Components and Materials Division. However, the EMS of each segment (the former four internal companies) has been implemented within the new system of the Business Headquarters.

*1. Environmental Management System

(7) Environmental Auditing

The Environmental Management Department, Technology, Research and Development Division, conducts companywide environmental audits in an attempt to achieve thorough adherence and compliance with environment-related laws and regulations, appropriate EMS management regarding environmental action plan, and comprehensively mitigate environmental risks.

In fiscal 2019, environmental affairs audits were conducted at seven sites (three in Japan and four outside Japan) in conjunction with internal audits. We confirmed that there were no major non-conformities requiring immediate administrative guidance. Although 67 minor non-conformities were revealed, actions to correct them have been underway according to plan.

(8) Environmental Education and Awareness Promotion

The Hitachi Metals Group has set up training systems as part of our EMS, and has established clearly defined roles for companywide training and individual factory-level training for further improvement of the employees' environmental awareness as well as the enhancement of knowledge and skills relevant to each workplace.

Environmental Training Systems

	Target		Description
General education	All employees	e-learning*1	Eco-mind training (Hitachi Group)
	On-site employees	On-site environmental education	General education on ISO14001 and environmental management performed by general employees
Professional education	New supervisor	Education for new supervisor	Environmental issues and workplace responsibilities
	Environmental Internal Auditors	Environmental Internal Auditor training	Environmental laws and regulations, EMS knowledge, and environmental skills
	Environmental officers	Environmental officer training	Education for staff responsible for environmental affairs, and comprehensive risk management
	Legally qualified personnel	Qualification-based training	Education to develop legally qualified personnel (including external training)

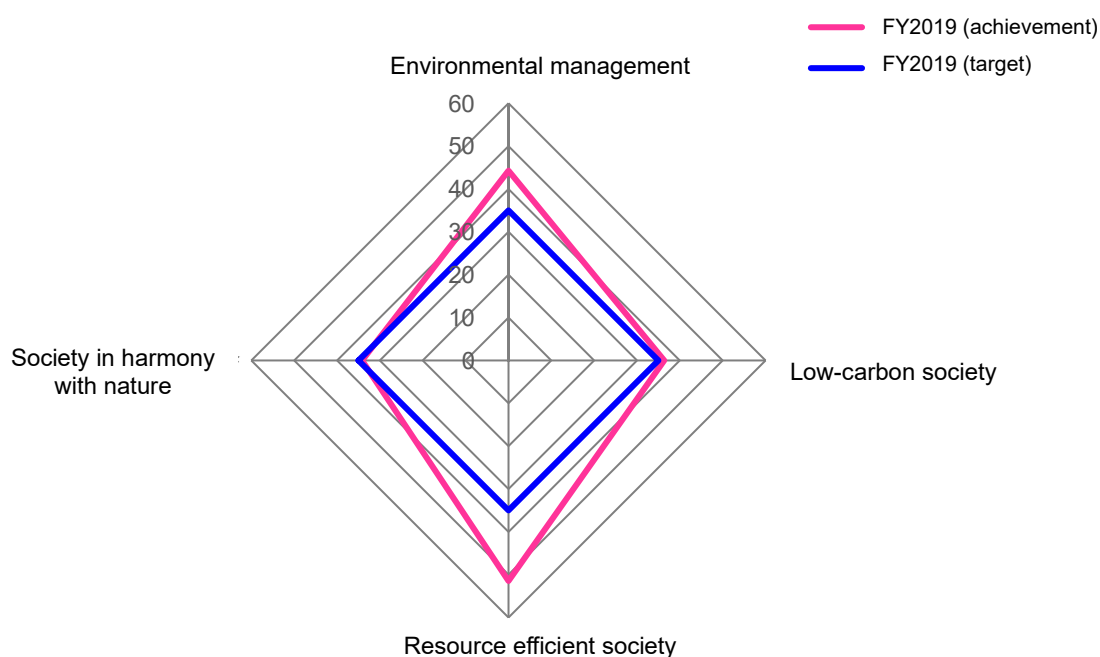
*1: Implementation was postponed in FY2019 due to a review of the content, and will be resumed as "Eco-mind education for the Hitachi Metals Group" starting in FY2020.

(9) Environmental Management Level “GREEN21-2021” Activities

The Hitachi Group promotes “GREEN21” as a system to assess point scores for ongoing improvement in environmental activities and for raising the level of activity. The Group revised GREEN21 for the fifth time in fiscal 2019, and pursues activities under GREEN21-2021 during the three years from fiscal 2019 to fiscal 2021.

In GREEN21-2021, activities are categorized under the four items in the table below, and are assessed and scored in accordance with the achievement status of the Environmental Action Plan. Additional points are provided for upward revision of targets, external awards, etc.

In fiscal 2019, the Hitachi Metals Group scored 166 Green Points (GPs) in the four categories, surpassing our target of 140 GPs. We will continue our efforts to achieve the targets of the Environmental Action Plan and make further progress under GREEN21.



Ordinance number	Category (Rating Form)	Main Rating Contents
1	Environmental management	Strengthening global environmental management, strengthening management of small and medium-sized business establishments, developing environment-conscious human resources, complying with laws as well as regulations, and reducing customer complaints
2	Low-carbon society	The amount as well as rate of reduction of CO ₂ emissions from products and services, improving CO ₂ emissions per unit, and reducing CO ₂ emissions during transportation (or from the shipper)
3	Resource efficient society	Improvement rate of water usage per production unit, reduction of water usage, and measures against water risks Reduction of waste valuable resources, improvement of such resources per unit, waste landfill rate, raw material usage status, and product recycling implementation status
4	Society in harmony with nature	Improvement ratio of per unit rate of chemical substances released into the atmosphere and promotion of activities for preservation of ecosystems

GREEN21-2021 Targets and FY2019 Achievement

(FY)	FY2019	FY2020	FY2021
Target	140	21.0	28.0
Actual	166	—	—

(10) The State of External Communications about the Environment

(a) Participation in Exhibitions

The Hitachi Metals Group participates in various exhibitions and introduces its environmentally conscious lineup of technologies that help customers make their products more efficient, compact, and lightweight, and products that feature longer-life performance. The Group tries to show how its products contribute to the reducing of environmental burden.

Main Exhibitions in which the Hitachi Metals Group Participated (Fiscal 2019)

Event date	Exhibition name (location)	Major items on display
April 17–19, 2019	TECHNO-FRONTIER 2019 (Chiba)	Advanced materials and technologies contributing to the evolution and electrification of motors
May 22–24, 2019	Automotive Engineering Exposition (Yokohama)	Advanced technologies and products (lightweight technology, etc.) that accelerate the evolution of electric vehicles
October 23–November 4, 2019	46th Tokyo Motor Show 2019 (Chiba)	Advanced technologies and products (amorphous alloys, motor technology, etc.) that accelerate the evolution of electric vehicles
November 27–29, 2019	Sixth Mass-Trans Innovation Japan (Chiba)	Products for rolling stock and railway systems (wires for rolling stock, etc.)

(b) External Awards

The Hitachi Metals Group's products and environmental activities won the following external awards in fiscal 2019 for their contribution to energy conservation and to reductions in size and weight.

Major External Environmental Awards (Fiscal 2019)

Company name	Product/technology awarded	Title of award	Awarding body	Description
NEOMAX Engineering Co., Ltd./Tokyo Eco Recycle Co., Ltd./Nichiwa Service, Ltd.	Promotion of circular economy for rare earth magnets	METI Minister's Award at the Fiscal 2019 Circular Resource Techniques and Systems Awards	Japan Environmental Management Association for Industry (JEMAI)	Developed a scheme to collect and reuse rare earth magnets from used products such as HDDs and air conditioners
Soft Magnetic Materials Business Unit, Hitachi Metals, Ltd.	Soft ferrite core "MaDC-F" series for Mn-Zn high frequency power supply	"Environment-, Resource-, and Energy-Related Parts Award" at the 2019 Super Manufacturing Parts Award	MONODZUKURI Nippon Conference hosted by The Nikkan Kogyo Shimbun	Developed a soft ferrite core that has less magnetic core loss even in the high frequency range and can prevent transformer performance deterioration
Wires, Cables, and Related Products Business Unit; Hitachi Metals, Ltd.	Ultrafine copper alloy wire and products to which it is applied	"Commissioner of the Patent Office Award" at the 2019 Kanto Region Invention Encouragement Award	Japan Institute of Invention and Innovation	Achieved ultra-fine copper alloy properties that maintain the high strength and high conductivity required for probe cables for medical equipment
Waupaca Foundry Inc.	Reduction of water usage	Business Friend of Environment Award	Wisconsin Manufacturers and Commerce	Contributes to the reduction of water used by water cooling systems
Nam Yang Metals Co., Ltd.	Improved waste recycling rate	Awarded by Director General, Ministry of Environment	Ministry of Environment, Republic of Korea, and Korea Environment Corporation	Convert waste casting sand to raw materials for cement, improving resource recycling utilization rate

(11) Consideration for the Preservation of Biodiversity

The Hitachi Metals Group’s ecosystem preservation measures include tree planting and forest conservation activities, cleanup activities in areas surrounding plants, and environmental education.

(a) Examples of Major Ecosystem Preservation, Tree Planting, Forest Conservation, and Social Contribution Activities



“Harmony Forest” tree planting activities (HMY, Ltd.)



Forest tree planting activities (Hitachi Cable Philippines, Inc.)



“Kazusawagawa Riverside Cleanup Campaign” (Ibaraki Works, Hitachi Metals, Ltd.)



“Cleaning activities around the Works” (Kumagaya Works, Hitachi Metals, Ltd.)

“Cleaning activities around the Works”
NEOMAX Engineering Co..

2. Environmental Consideration in Products

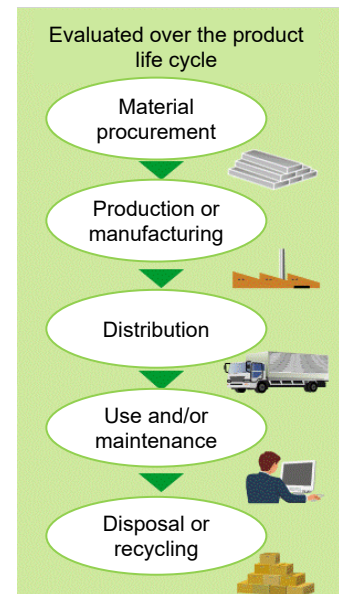
The Hitachi Metals Group considers “Thinking about the next generation—An environment-friendly solution” an important managerial issue. We contribute to the realization of a sustainable society through the creation of new products and new technologies that meet such needs, as well as through the provision of advanced environmentally conscious products.

(1) Environmentally Conscious Vision in Products and Services

For the purpose of contributing to the realization of a sustainable society, the Hitachi Metals Group is focusing attention on the environmental and energy sectors as we promote the development of new products. Moreover, for the development and design of such new products, we promote environmentally friendly product development based on the “Hitachi Group Eco-Design Management Guidelines” (revised version), which takes product life cycles into account.

Eco-design that takes product life cycles into account is now required by the revision of ISO 14001:2015, by the establishment of IEC 62430^{*1}, and by national regulations for energy-saving products. In order for evaluations to be made from the viewpoint of life cycles based on IEC62430, the Hitachi Metals Group revised its environmentally conscious design assessments and Life Cycle Assessment (LCA) in fiscal 2016. Using these assessment tools, we carry out product development and design that consider the environment throughout the entire life cycle of the product, from procurement and manufacturing to use and disposal by the customer.

The table below shows examples of the Hitachi Group's products and the environment- and energy-related fields in which the products are utilized.



*1. IEC 62430: The standards set by the International Electrotechnical Commission (IEC) for “Environmentally conscious design for electrical and electronic products”

Examples of the Hitachi Group's Products and the Environment- and Energy-Related Fields in Which the Products Are Utilized

Field of application		Products and application examples	
Energy	Renewable Energy	Solar cells	Amorphous cut core, dust choke coil, Target materials
		Wind-power generation	Rare earth magnets, amorphous metal materials, fine met core, and magnet wires
	Energy saving and high efficiency	Power generation facilities	Super-heat-resistant metal materials and precision casting blades for turbine wheels
		Home appliances	Magnets for air conditioners and refrigerator compressors high-efficiency amorphous motor components
	Electricity storage/transformation	Transformers	Amorphous metal materials for low-loss transformers
Batteries		SOFC ^{*2} fuel cell parts (interconnector materials and heat-resistant parts) Electrode members for secondary batteries	
Automobiles	Emissions control		Components that help clean exhaust gas
	Fuel economy regulations	Light weight	Lightweight undercarriage, magnets for EPS ^{*3} and various sensors
		High efficiency	Heat-resistant cast steel materials and CVT ^{*4} belt materials
	Hybrid/EVs	Motors	Rare earth magnets, amorphous metal materials, fine met core, clad metals for secondary battery electrodes, and highly efficient magnet wires
Inverters and other devices		Members for fast charging, aluminum cast inverter cases, silicon nitride substrates, and power harnesses	
Rolling Stocks	More efficient, compact, lighter weight		Cables for rolling stock
Aviation	Longer life and higher efficiency		Ni-based alloy large forged parts for aircraft engines, and high-heat-resistance/high-corrosion-resistance alloys
Electronics	Electromagnetic field		Communication modules, multilayer ceramics components, silicon nitride substrates
	Long-life products		Components free from environmental concerns
Industries/Infrastructure	Aircraft components		Long-life die steel, carbide rolls, corrosion/heat-resistant fittings, Eco-Green cables

*2. Solid Oxide Fuel Cells

*3. Electronic Power Steering

*4. Continuously Variable Transmission

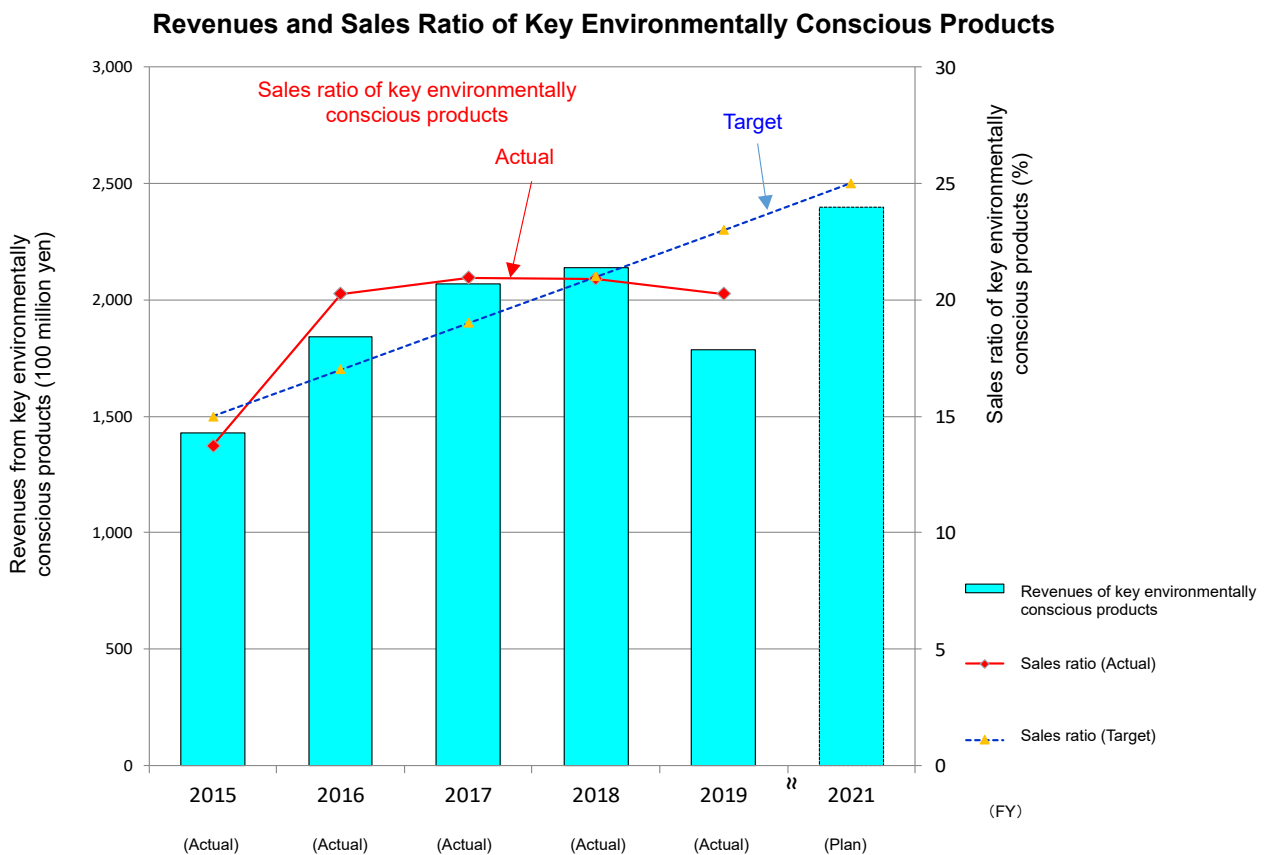
(2) Expansion of Key Environmentally Conscious Products

The Hitachi Metals Group defines environment-conscious products as those targeted for growth based on a management strategy and that make a significant contribution to resolving environmental issues such as climate change and resource recycling. The Group is promoting the increase of revenue from environment-conscious products.

In fiscal 2019, the sales of the environment-conscious products decreased significantly due to factors such as a decline in automobile sales on a global scale.

The sales ratio of environment-conscious products decreased to 20.2%, down 0.7% from the previous year and short of the target value of 23%, due to a large decrease in sales of heat-resistant cast parts and sensors for automobiles.

We will continue to expand revenues of these products while contributing to the resolution of environmental issues facing society.

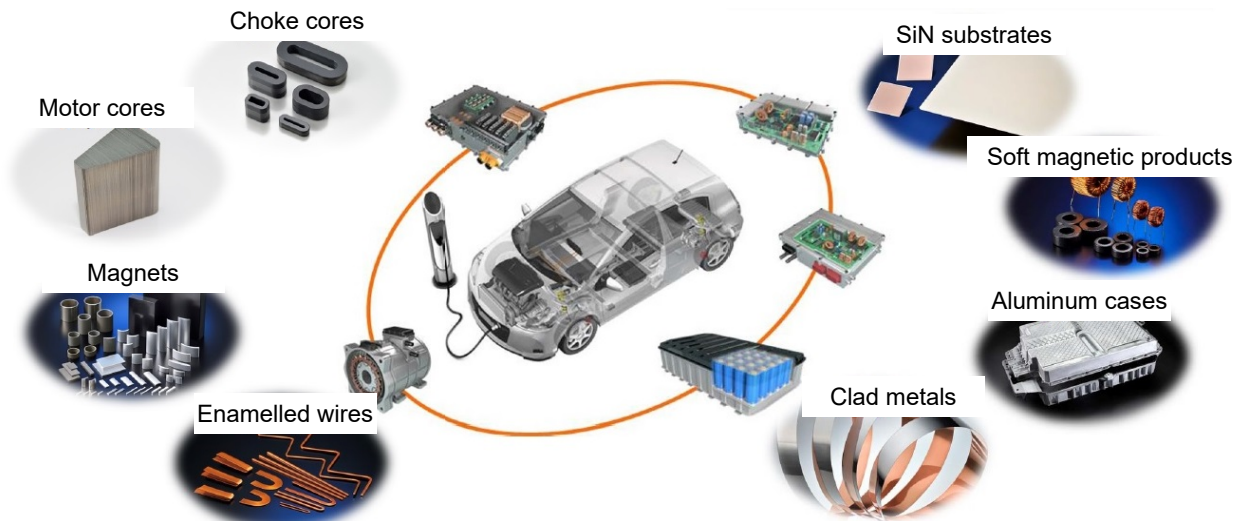


(3) The Hitachi Metals Group's Environment- and Energy-related Products

The Hitachi Metals Group develops and delivers materials and products in fields ranging from generators and transformers through to factories, plants, offices, homes, and vehicles, contributing to the environment and energy across wide-ranging areas of society.

Introducing Environment- and Energy-related Products

■List of our xEV^{*1}-related products



*1. xEV: A generic term for electric vehicles (EVs), hybrid electric vehicles (HEVs), and plug-in hybrid electric vehicles (PHEVs).

■Forged and ring mill materials for new jet engines for commercial aircraft

Materials for Industrial Equipment / Aircraft and Energy Related Materials Business Unit, Advanced Metals Division

Medium- and large-sized commercial aircraft are being converted to use new jet engines that are required to have high fuel efficiency to respond to environmental and efficiency perspectives. The new jet engines must comply with strict quality requirements such as crystal grain size with uniform fine grain structure, high strength, and compatibility between fatigue identification and creep characteristics. Globally, there are increasing demands for high-performance nickel-based alloy large discs that meet these requirements.

By achieving and providing the high, consistent quality and process capacity stabilization required for forged and ring mill materials for new jet engines for aircraft that are required to have high fuel efficiency and strict quality characteristics, the Company contributes to a low-carbon society through the reduction of fuel consumption of aircraft.



■60HRC-class pre-hardened / cold work tool steel SLD-f[®]

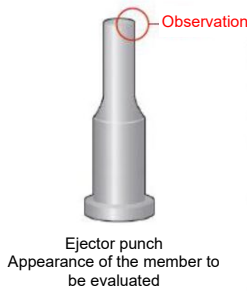
Tool Steel & Roll Business Unit, Advanced Metals Division

The conventional cold work tool steel product (SKD11) requires various steps such as slips related to heat treatment, process control, delivery date confirmation, incorporation of post processing, and acceptance of the actual products. However, our new product SLD-f[®] allows for the elimination of heat treatment, making the related complicated steps unnecessary. Since the heat treatment process and the deformation correction process required by the heat treatment are also omitted, the lead time for mold manufacturing can be shortened.

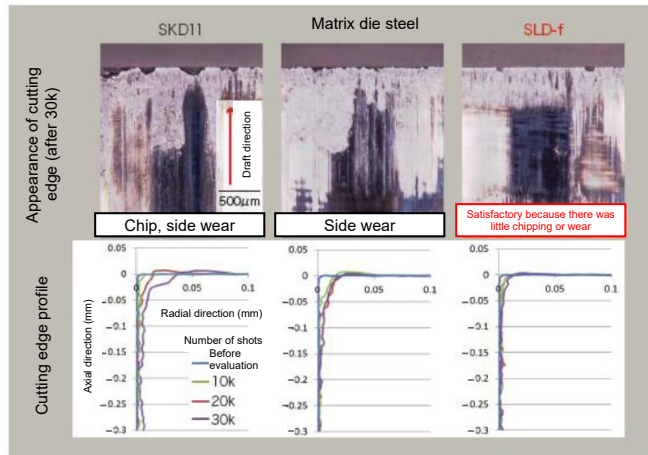
The toughness of SLD-f[®] is equivalent to or higher than that of matrix die steel. Since the amount of coarse primary carbide is low, SLD-f[®] has a higher fatigue limit than conventional products. By providing 60HRC class pre-hardened steel, the Company contributes to the effective use of resources as employing the steel shortens lead time for mold manufacturing, reduces energy by eliminating the heat treatment process, reduces the variations in product lives caused by heat treatment, and stabilizes the useful life of molds.

Evaluation case

The evaluation of punch edge wear is satisfactory because there is little chipping or wear.



[Test conditions]	
Item	Description
Processed material	780MPa-1.4mmt
Machine used	80-ton transfer press
Speed	70 shots/minute
Punch	Ejector punch (material evaluated: 60HRC Φ8mm)
Die	Button die (SKH40, 66HRC) Clearance: 10% of plate thickness



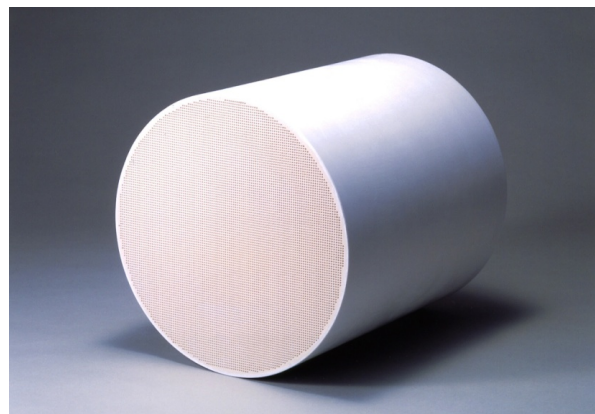
■CERACAT[®] filter complying with particle number regulations

Automotive Casting Business Unit, Advanced Metals Division

—Compatibility between high PM collection performance and low pressure loss performance due to original pore control technology

Particle number regulations for exhaust gas from commercial vehicles have been enforced in Japan, the United States, and Europe. They regulate the particulate matter (PM) contained in diesel engine exhaust gas by the number of particles instead of mass, and PM emissions are about 1/10 of or less than the conventional mass control value.

Thanks to our original pore control technology, the CERACAT[®] filter, a diesel particulate filter made of cordierite, delivers PM collection performance that complies with the particle number regulations. At the same time, it delivers a high level of pressure loss performance, which is a usually a trade off with collection performance.



CERACAT[®] filter

It is possible that PM fine particles floating in the atmosphere are taken into the human body as they are, and that substances adhering to the particle surfaces may adversely affect human health. Our CERACAT[®] filter contributes to the improvement of the air environment through the purification of diesel exhaust gas.

■Magnetic domain control type Fe-based amorphous alloy MaDC-A™

Power Electronics Materials Business Unit, Advanced Components & Materials Division

In recent years, the reduction of CO₂ emissions has been required as a measure against climate change.

Saving energy is more urgent than ever.

For distribution transformers, each country is tightening its energy efficiency regulations, and core materials with lower loss that comply with such regulations are required.

MaDC-A™ is a Fe-based amorphous alloy developed by the Company to which axis control technology is applied.

Its magnetic flux density is higher than that of conventional products, allowing for approximately 25% reduction of iron loss. These characteristics improve the efficiency of distribution transformers and contribute to downsizing and weight reduction, thereby reducing environmental loads such as energy use and preventing climate change.

MaDC stands for “Magnetic Domain Controlled.”

The Company provides not only the MaDC-A™ series, but also the MaDC-F™ series, soft ferrite materials that have been released to the market since 2019. The MaDC-F™ series more effectively meets the needs for higher efficiency than the conventional materials



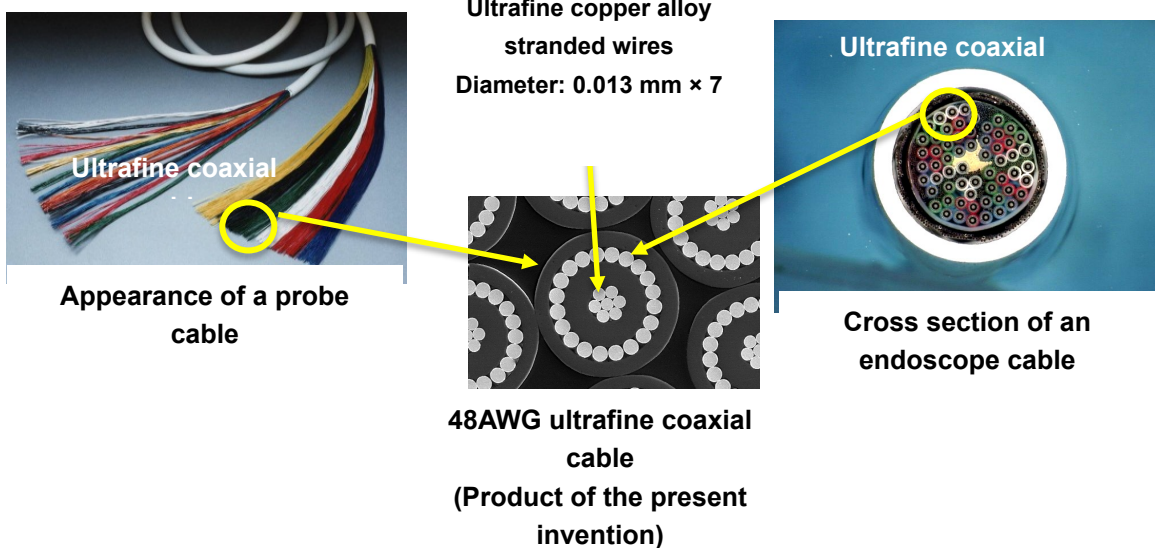
Fe-based amorphous alloy MaDC-A™

■Ultrafine copper alloy wire and products that use it

Electric Wire & Cable Business Unit, Advanced Components & Materials Division

Our ultrafine copper alloy wire and the products that use it find applications as endoscopes cables particularly for probe cables in medical equipment, and are used in the medical field for gastrocameras and ultrasonic diagnostic equipment. They achieve higher definition, and also reduce stress on the human body. An ultrafine coaxial cable using this ultrafine copper alloy wire (wire diameter: 0.013 mm) has a diameter which is smaller than that of conventional coaxial cables by about 20% (example: 0.205 mm -> 0.165 mm). At the same time, it maintains high strength and high conductivity, in addition to being a very environmentally friendly product. On the strength of these characteristics, in fiscal 2019, the cable received the "Patent Agency Director Award" at the Kanto Region Invention Awards sponsored by the Japan Institute of Invention and Innovation.

We will contribute to a low-carbon society as well as people's health and welfare through the reduction of cable diameters.



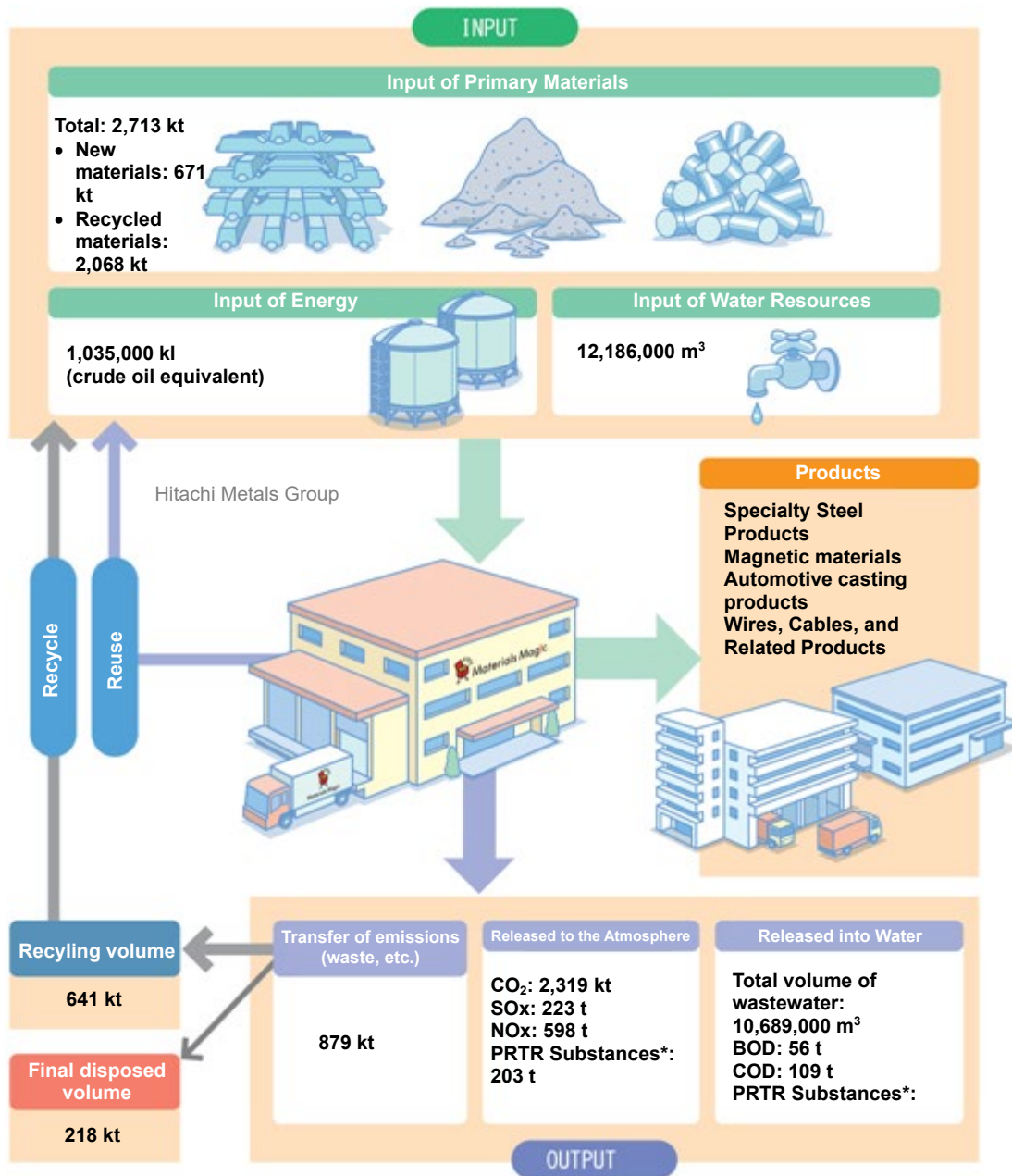
3. Environmental Consideration in Manufacturing

This is a graphical representation of the balance of materials in manufacturing processes at the Hitachi Metals Group for fiscal 2019.

The Hitachi Metals Group is promoting the reduction of the environmental burden in two directions: reducing the volume of input through the efficient use of resources and energy, and reducing the volume of output by controlling atmospheric releases and wastewater discharges, reducing and recycling waste, and so on.

(1) Material Balance

The Hitachi Metals Group's Material Balance for Fiscal 2019 (Global)



* PRTR emissions are the total value of the domestic group

* Final disposal amount includes household waste, hazardous waste, and in-house landfill

(2) Climate Change Prevention

The Hitachi Metals Group is a materials manufacturer and uses significant amounts of energy in its manufacturing processes. For this reason, the Group positions the prevention of climate change as a management priority. The Group has established medium- to long-term targets and is now working on energy conservation measures to reduce its energy consumption rate and CO₂ emissions.

(a) Vision for Preventing Climate Change

The following presents the targets of the Hitachi Metals Group's three-year plan covering fiscal 2019 to fiscal 2021 and the results of fiscal 2019.

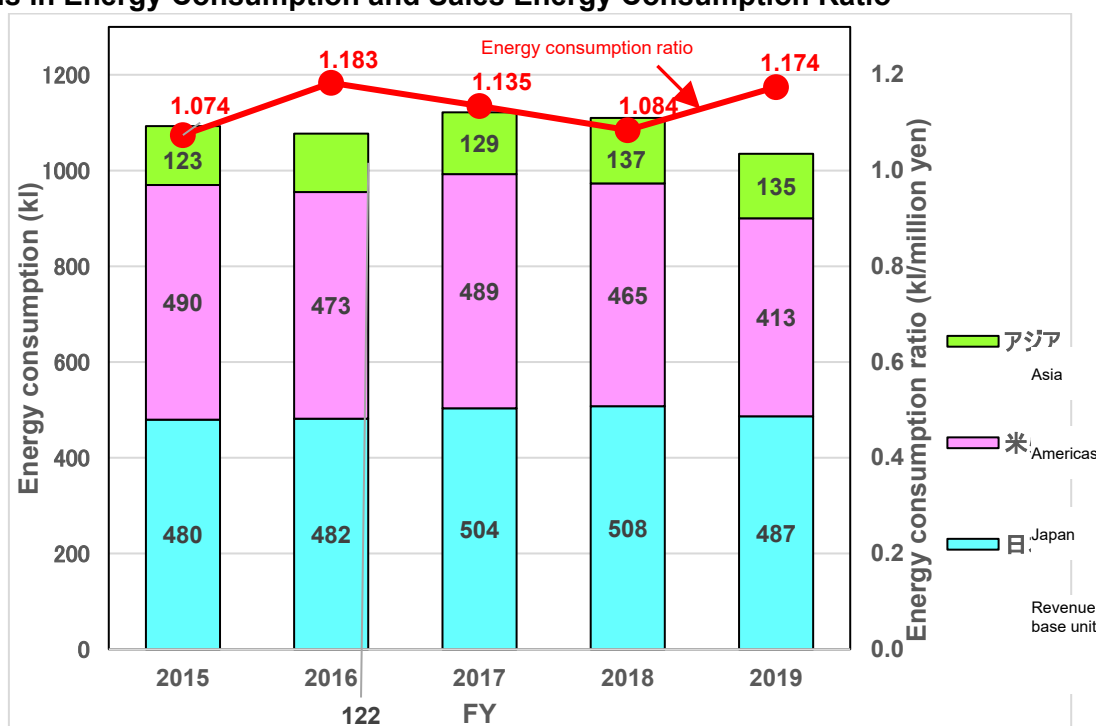
- **Targets for Fiscal 2021 in the Medium-Term Environmental Action Plan**
Reduction of per unit of CO₂ emitted*¹ in manufacturing processes by 7% from that in FY2010 (global)
*1. (CO₂ emissions) / (amount of activity*²)
*2: A figure representing the scale of business activities such as sales or production weight
- **Fiscal 2019 Results**
Improvement ratio of CO₂ emissions per unit: 1.4%

(b) Trends in Energy Consumption and Sales Energy Consumption Ratio per Production Unit

The Hitachi Metals Group's global energy consumption in fiscal 2019 was equivalent to 1,035 thousand kl of crude oil, down 75 thousand kl from fiscal 2018. This is due to a decrease in production caused by a 13.9% decline in revenue from the previous year. On the other hand, the basic unit for revenue was 1.174, up about 8.3% from FY2018. The primary cause of the increase of the basic unit was the effect of a decrease in the capacity utilization rate due to decrease in production volume. Also factors were the effects of energy saving activities (specifically, efficiency improvement and yield improvement) and fuel conversion—efforts that we have been continuously promoting.

To reduce energy consumption even further, we will continue to pursue energy-saving activities linked to *monozukuri* (manufacturing). The emphasis is on omitting excess processes, improving efficiency, boosting yield rate, installing energy-saving equipment, and fuel conversion.

Trends in Energy Consumption and Sales Energy Consumption Ratio

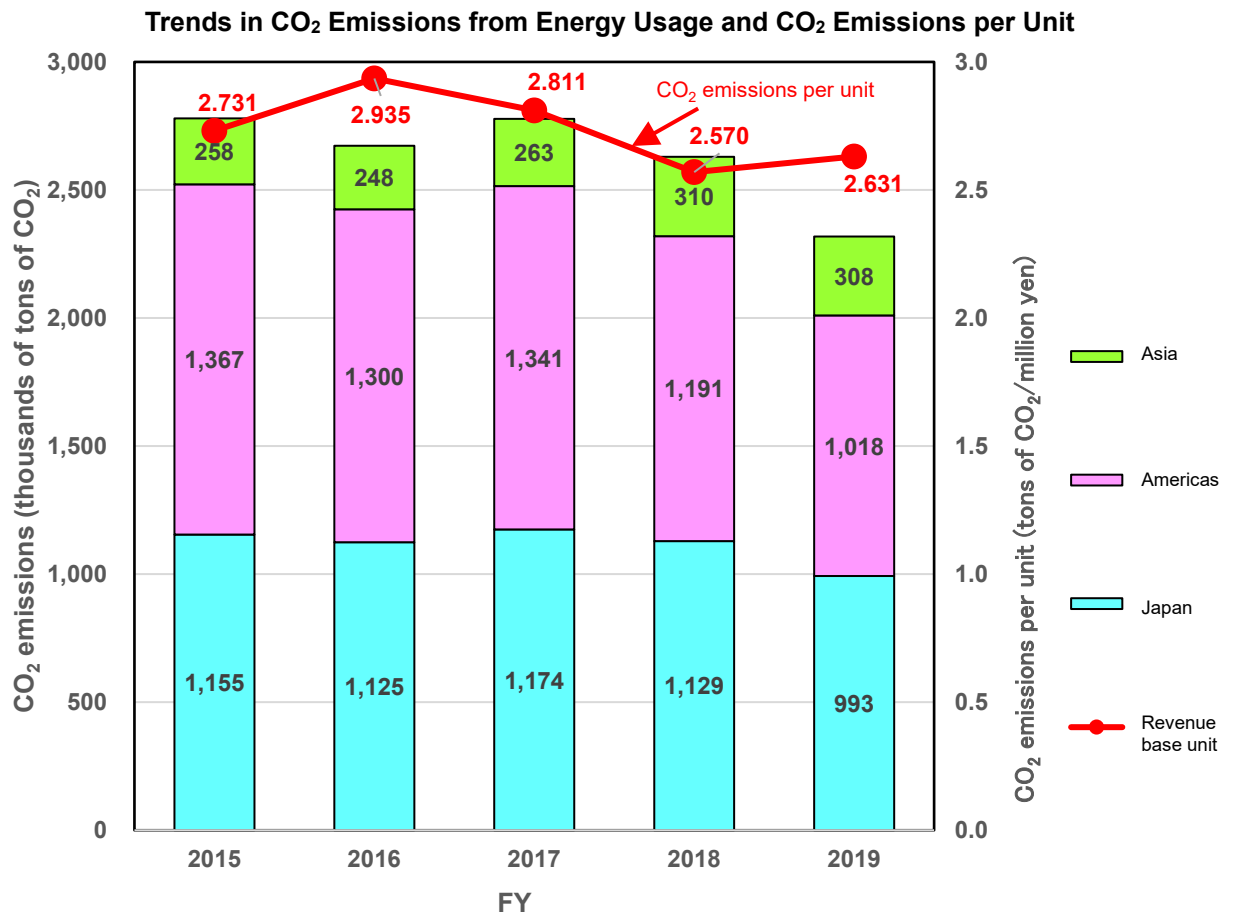


(c) Trends in CO₂ Emissions from Energy Usage and CO₂ Emissions per Unit

In fiscal 2019, CO₂ emissions from the Hitachi Metals Group’s business activities decreased by 311 thousand tons (11.8%) from FY2018, to 2,319 thousand tons. The main factors of the decrease in CO₂ emissions were a production decrease caused by a decrease in sales revenue, down 13.9% from the previous year, and the promotion of energy conservation activities (mainly efficiency improvement and yield improvement) as well as fuel conversion.

On the other hand, the basic unit for revenue was 2.631, up about 2.4% from FY2018. One of the major factors behind the increase in the basic unit was a decrease in the capacity utilization rate due to the decrease in production volume.

The Hitachi Metals Group carries out energy-saving activities coordinated with its *monozukuri* to reduce CO₂ emissions. Specifically, these activities include omitting excess processes, improving efficiency, obtaining higher yield rates, installing energy-saving equipment, and fuel conversion.



Note: At 62%, electricity accounts for the majority of the Hitachi Metals Group’s CO₂ emissions, followed by coke and city gas, in that order.

For the CO₂ emission factor of electric power, Japan uses emission factor for each electric power company announced by the Ministry of the Environment, while the Americas and Asian countries use the country-specific conversion factor issued in 2017 by the IEA (International Energy Agency).

(3) Effective Use of Resources

(a) Vision for Effective Use of Resources

The Hitachi Metals Group is using in-house reuse and recycling by way of intermediate processing to create a resource-efficient society and achieve the “thorough circulation of resources throughout the life cycle of goods and services,” as stated in the 4th Fundamental Plan for Establishing a Sound Material-Cycle Society.

• Targets for Fiscal 2019 in the Medium-Term Environmental Action Plan

- reduction of waste generation per production unit^{*1} by at least 12% compared to fiscal 2010 (global basis)
- waste landfill rate: 14% or less (global)

*1. (Waste and valuables generation) / (amount of activity^{*2})

*2: A figure representing the scale of business activities such as sales or production weight

• Fiscal 2019 Results

Rate of reduction of waste generation per production unit: 16.6%

Waste landfill rate: 13.7%

We are working to reduce waste/valuables generation (“waste”), which is measured using the indicator of generation of waste per production unit. We are promoting efforts to reduce waste output, focusing on process innovation such as kaizen (improvement) of production processes. Furthermore, due to strict conditions in the final disposal site and requirements to respond to social demands regarding the effective use of resources, we have set a goal since FY2019 of improving the waste landfill rate, working to increase recycling and reduce the final disposal volume.

(b) Results of Waste Management

Total waste generated by the Hitachi Metals Group in fiscal 2019 reached about 879 thousand tons, down 135 thousand tons from 1,004 thousand tons in the previous fiscal year.

We achieved a 16.6% reduction from the base year in the generation of waste per production unit, a management indicator in our Environmental Action Plan, and exceeded our target. This was attributable to the launch of a sand recycling system at the U.S.-based Waupaca Foundry, Inc.

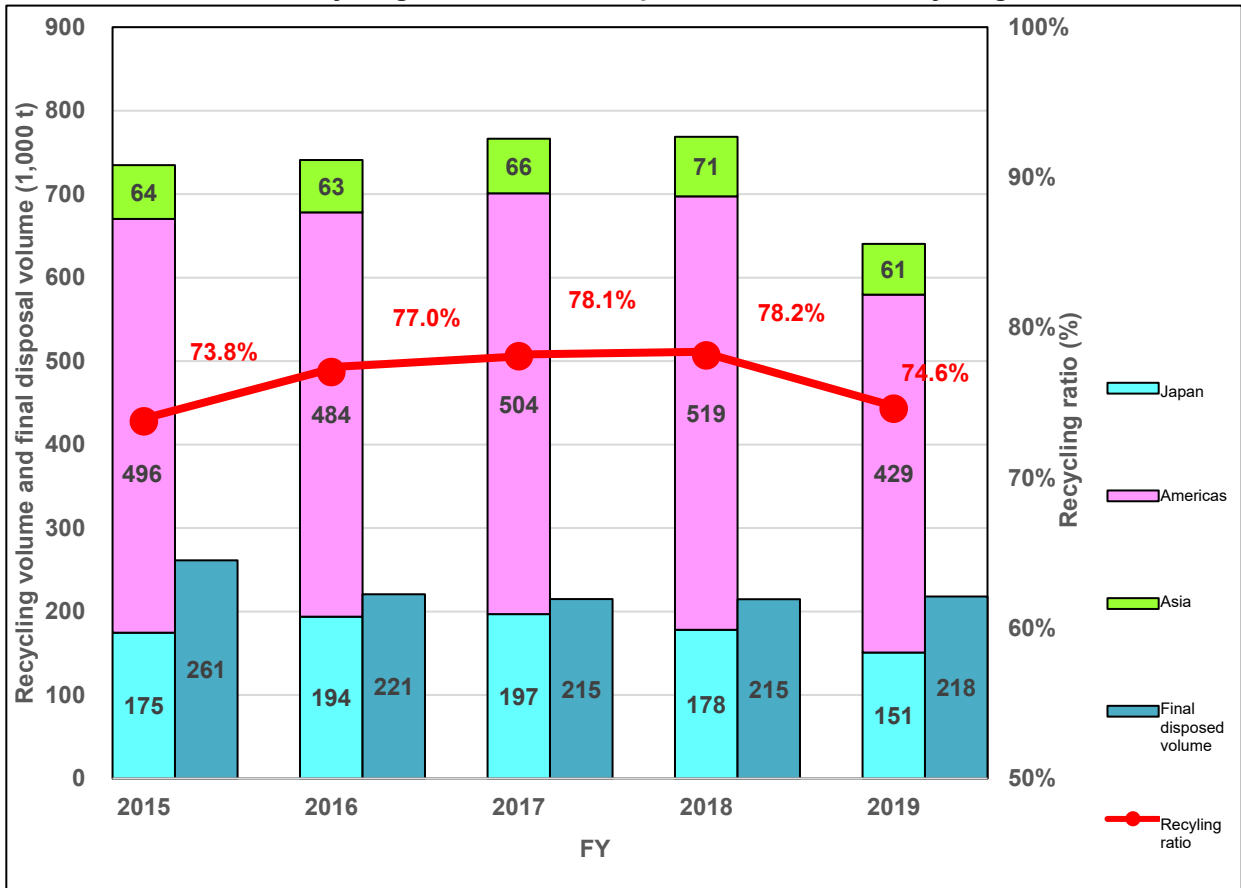
The amount of recycled resources was 151,000 tons in Japan, 429,000 tons in the Americas, 61,000 tons in Asia (total: 641,000 tons). The final disposal amount was 19,000 tons in Japan, 188,000 tons in the Americas, and 11,000 tons in Asia (total: 218,000 tons). (The final disposal amount includes the amount of household waste, hazardous waste, and waste deposited on our premises.)

There were many challenges to recycling waste in Japan, but due to factors such as recycling activities in the Americas, the waste landfill rate in fiscal 2019 was 13.7%, compared to the target value of 14%. Going forward, we plan to raise the bar overall through initiatives at overseas offices, where we believe that many recyclable items remain.

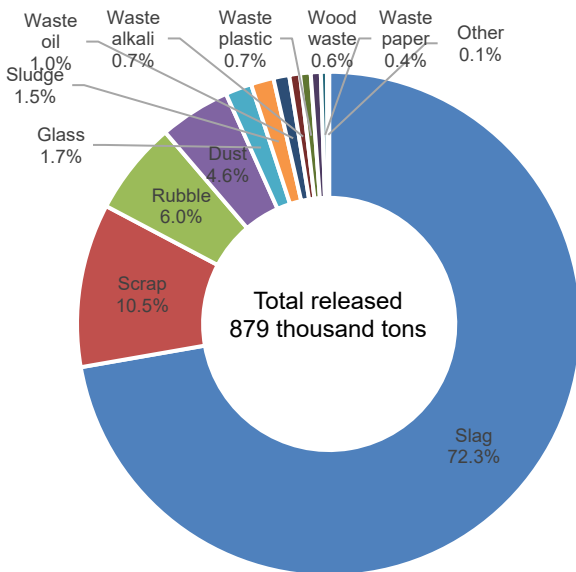
Also of note, we achieved zero emission status^{*1} at 17 business offices.

*1. Deemed to be a final disposal volume of less than 0.5% of total emissions since fiscal 2011

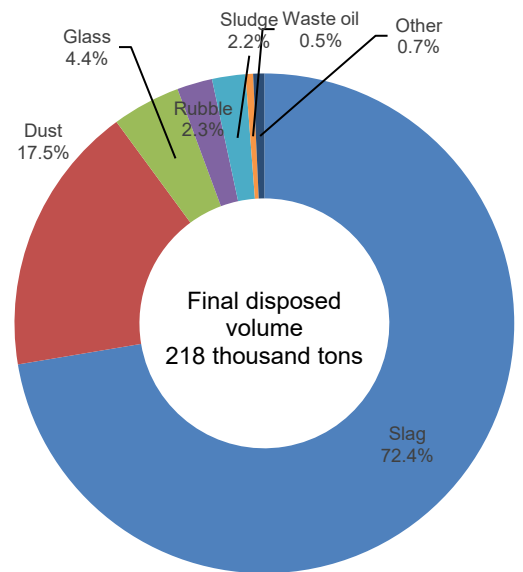
Trends in Recycling Volume, Final Disposal Volume, and Recycling Ratio



Breakdown of Waste Volume (Hitachi Metals Group)



Breakdown of Final Disposal Volume (Hitachi Metals Group)



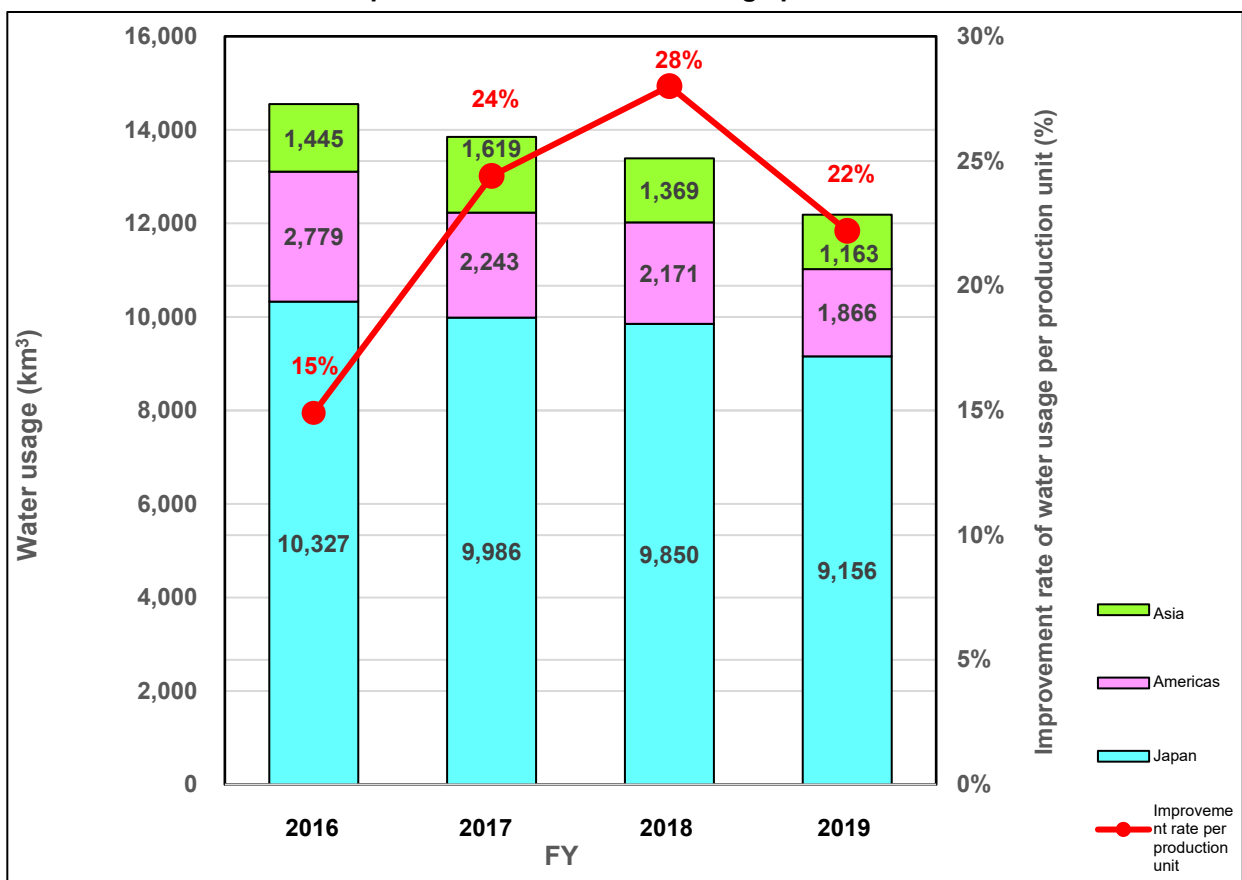
Note: The final disposal amount includes household waste, hazardous waste, and in-house landfill.

(c) Reduction of Water Usage

- **Targets for Fiscal 2019 in the Medium-Term Environmental Action Plan**
 - Reduction of water usage per production unit*¹ by at least 22% compared to fiscal 2010 (global basis)
 - *1. (Water usage) / (amount of activity*²)
 - *2. A figure representing the scale of business activities such as sales or production weight
- **Fiscal 2019 Results**
Improvement rate of water usage per production unit: 22.2%

Since fiscal 2016, we have been working to achieve the targets for effective use of water resources set in the Environmental Action Plan through global efforts. Our water usage amounted to 12,186 thousand m³, a decrease of 1,205 thousand m³ from FY2018. We reduced water usage per production unit by 22.2% compared to the base year, achieving our target.

Trends in Improvement Rate of Water Usage per Production Unit



(4) Chemical Substance Management

(a) Reduction of Substances of Environmental Concern

Of the substances handled by domestic companies in the Hitachi Metals Group that are subject to the PRTR Law,^{*1} six materials which are nickel, chromium, molybdenum, manganese, phthalic acid (2-ethylhexyl), and cobalt are essential raw materials used in Hitachi Metals' products. These six substances constitute 95% of regulated materials and 71% of the total amount transferred.

Of this total amount released, 99% or more was released into the atmosphere, and 75% of the substances released into the air are three volatile organic compounds (VOCs), namely toluene, xylene, and ethylbenzene.

*1. Law Concerning Reporting, etc., of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

The State of PRTR Substance Handling in Fiscal 2019 (Domestic Group)

Fig. Breakdown of Volume Handled

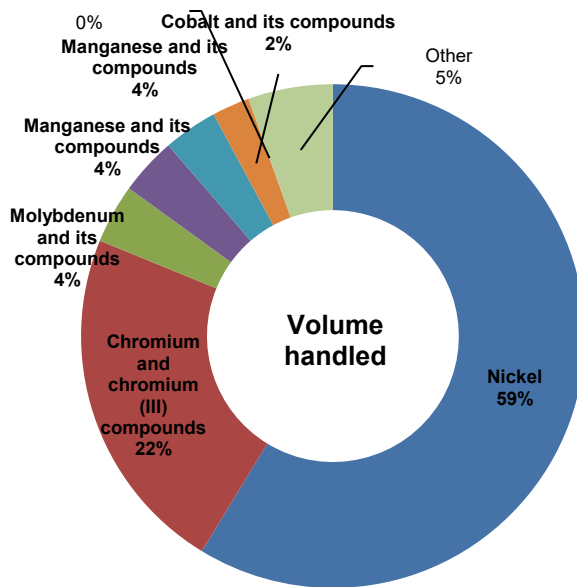


Fig. Volumes Consumed, Released, and Transferred, and Other Breakdowns

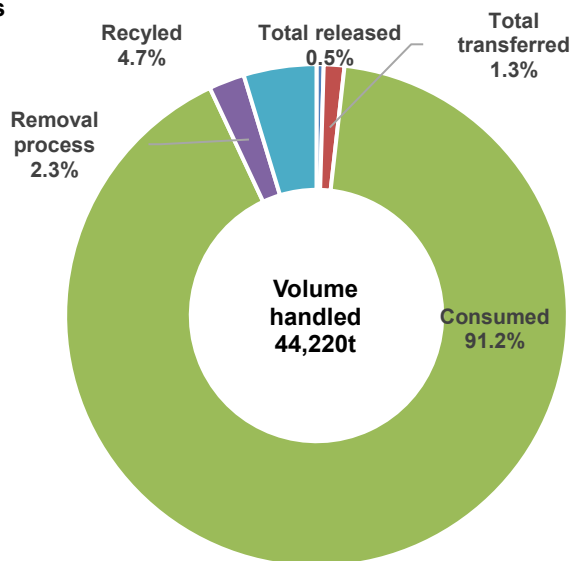


Fig. Breakdown of Volume Released

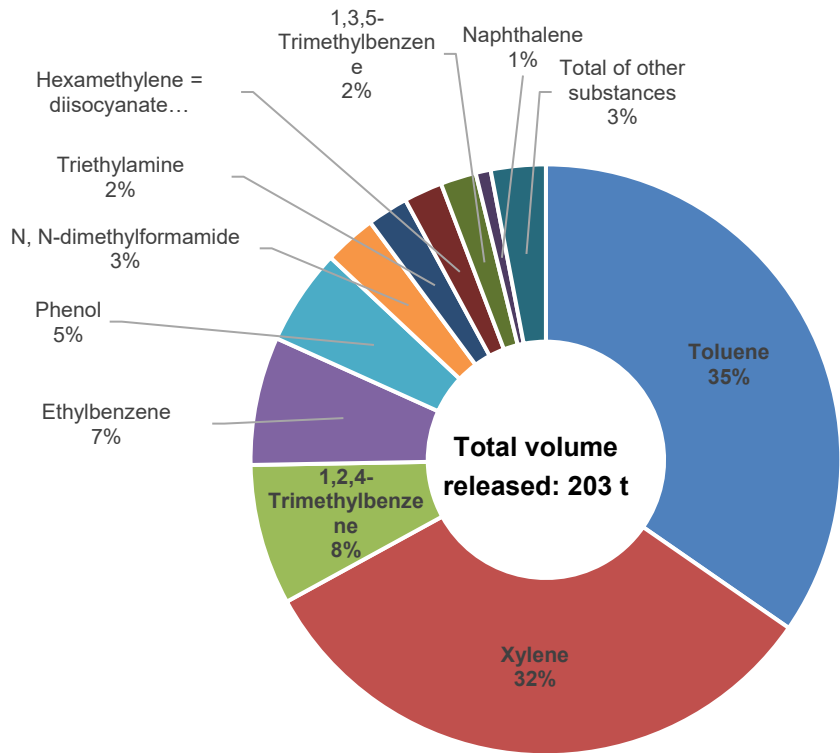
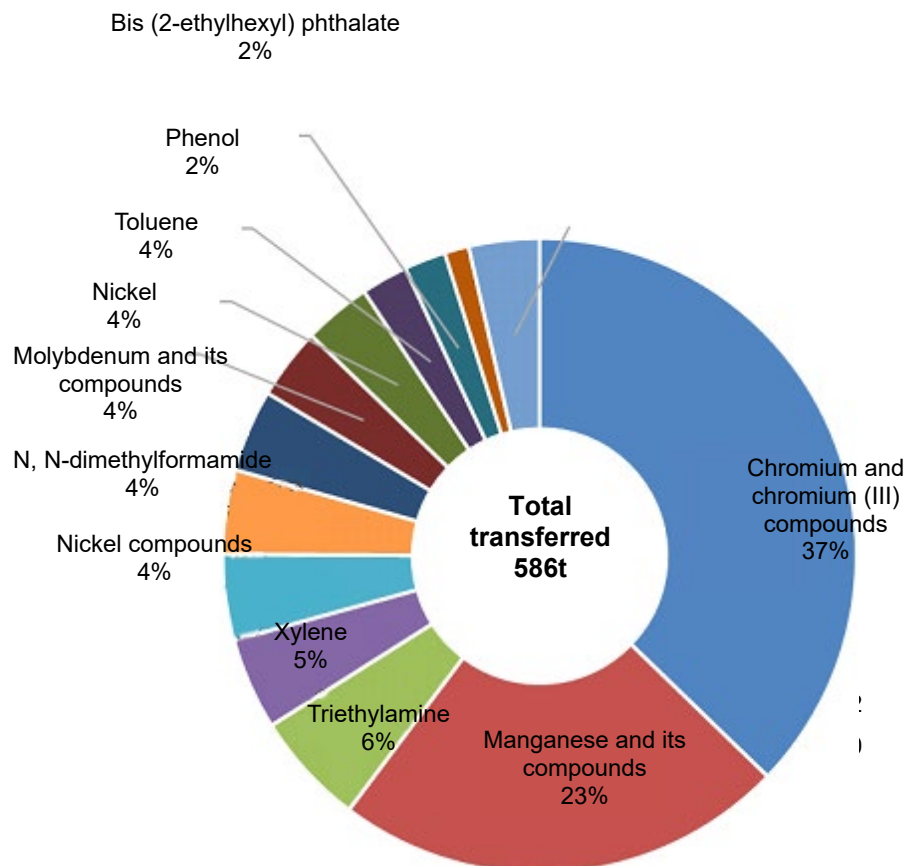


Fig. Breakdown of Transferred



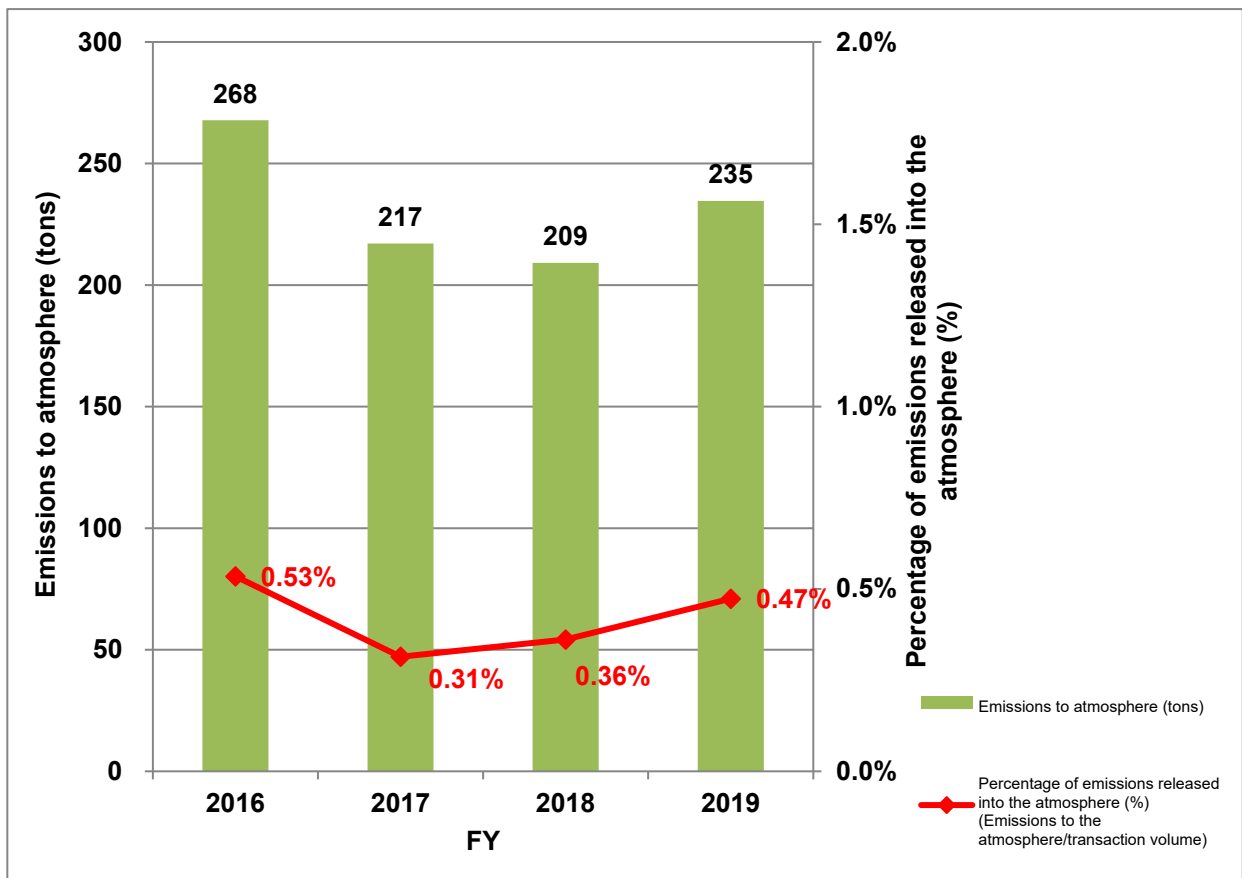
Number	Substance	CAS Number	Volume handled	Volume released					Volume transferred		
				Atmosphere	Public water system	Soil	Landfill	Total	Sewerage	Waste	Total
1	Zinc and its water-soluble compounds	-	1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
31	Antimony and its compounds	-	99	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
37	4,4'-Isopropylidenediphenol (alias: bisphenol A)	80-05-7	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42	2-imidazolidinone	96-45-7	2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
53	Ethylbenzene	100-41-4	31	14.3	0.0	0.0	0.0	14.3	0.0	7.3	7.3
71	Ferric chloride	7705-08-0	318	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
80	Xylene	1330-20-7	153	65.8	0.0	0.0	0.0	65.8	0.0	27.4	27.4
82	Silver and its water-soluble compounds	-	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86	Cresol	1319-77-3	268	1.4	0.0	0.0	0.0	1.4	0.0	6.4	6.4
87	Chromium and chromium (III) compounds	-	9,935	0.0	0.1	0.0	0.0	0.1	0.0	218.2	218.2
88	Hexavalent chromium compound	-	401	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
132	Cobalt and its compounds	-	1,064	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3
155	N-(cyclohexylthio) phthalimide	17796-82-6	1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
213	N,N-dimethylacetamide	127-19-5	27	0.8	0.0	0.0	0.0	0.8	0.0	0.8	0.8
230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	793-24-8	4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7
232	N, N-dimethylformamide	68-12-2	225	5.8	0.0	0.0	0.0	5.8	0.0	25.2	25.2
277	Triethylamine	121-44-8	80	4.6	0.0	0.0	0.0	4.6	0.0	33.8	33.8
296	1,2,4-Trimethylbenzene	95-63-6	36	15.6	0.0	0.0	0.0	15.6	0.0	4.0	4.0
297	1,3,5-Trimethylbenzene	108-67-8	11	4.0	0.0	0.0	0.0	4.0	0.0	0.7	0.7
300	Toluene	108-88-3	93	70.4	0.0	0.0	0.0	70.4	0.0	20.2	20.2
302	Naphthalene	91-20-3	2	1.7	0.0	0.0	0.0	1.7	0.0	0.7	0.7
304	Lead	7439-92-1	122	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
305	Lead compounds	-	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
308	Nickel	7440-02-0	25,964	0.0	0.0	0.0	0.0	0.0	0.0	21.3	21.3
309	Nickel compounds	-	116	0.0	0.2	0.0	0.0	0.2	0.0	25.6	25.6
330	Bis (1-methyl-1-phenylethyl) peroxide	80-43-3	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
349	Phenol	108-95-2	294	10.7	0.0	0.0	0.0	10.7	0.0	14.0	14.0
355	Manganese and its compounds	117-81-7	1,632	0.0	0.0	0.0	0.0	0.0	0.0	12.4	12.4
391	Hexamethylene = diisocyanate	822-06-0	43	4.3	0.0	0.0	0.0	4.3	0.0	0.0	0.0
392	Normal Hexane	110-54-3	2	0.9	0.0	0.0	0.0	0.9	0.0	0.9	0.9
405	Boron compounds	-	6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
411	Formaldehyde	50-00-0	3	1.4	0.0	0.0	0.0	1.4	0.0	0.5	0.5
412	Manganese and its compounds	-	1,537	0.0	0.3	0.0	0.0	0.3	0.0	135.1	135.1
438	Methylnaphthalene	1321-94-4	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
453	Molybdenum and its compounds	-	1,679	0.0	0.0	0.0	0.0	0.0	0.1	24.4	24.5
(A total of 42 substances with handled volumes of less than one ton)			7	1.4	0.0	0.0	0.0	1.4	0.0	1.8	1.8

(b) Reduction of Chemical Substance Emissions

Since fiscal 2016, we have revised our management of chemical substances, which had previously targeted only volatile organic compounds (VOCs), based on risks such as acute toxicity and carcinogenesis, and have identified 50 new substances for management from among substances handled in large amounts. We are engaged in activities aimed at controlling the release of these substances to the environment. Most are emitted into the atmosphere, and VOCs account for over 90% of the total. We are therefore continuing improvement activities that focus on the treatment of solvent components used for product coating, as in the past, working to reduce emissions by conducting technological investigations and making changes in equipment to find substitutes for coating materials and improve processes.

The percentage of emissions released into the atmosphere was 0.47% in fiscal 2019, almost the same as fiscal 2018.

Trends in Percentage of Chemical Substance Emissions Released into the Atmosphere



(5) Eco-Factory Case Study

Efforts to reduce CO₂ emissions (Namyang Metals Co., Ltd.: South Korean Factory)

At Namyang Metals Co., Ltd. (Daegu, South Korea), the main product is casting materials for automobile parts. The electric power for induction furnaces that produce molten metal for metal casting accounts for more than 70% of the company's energy consumption.

The company is continuously engaged in improvement activities using indicators such as improving the annual operating rate, improving the recovery rate of molten metal, and reducing the defect rate. As part of the activities, in 2018, the company installed new scrap preheating equipment for five production lines. By using LPG, which is more energy efficient than electricity, the company can now heat scrap to the target temperature in a short time. Also in 2019,

The company installed six new casting lines equipped with highly efficient mold cooling equipment, reducing its energy cost by approximately 30%. Products are now transferred by vibration, as opposed to the conventional method of using a drum. As a result, cases in which products collide with each other have decreased, which has also lowered the percentage of rejects.



Scrap preheating equipment

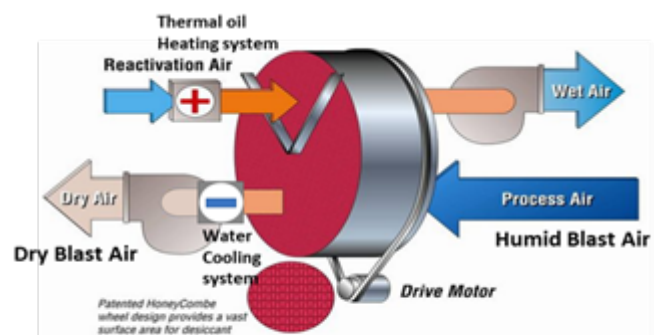
CO₂ reduction by improving the efficiency of metal melting furnaces and utilizing unused energy through recovering waste heat

(Waupaca Foundry, Inc.)

Waupaca Foundry, Inc. (hereinafter referred to as Waupaca, located in Wisconsin, United States) mainly manufactures automobile casting products by melting metals. Although a lot of energy is used in the metal melting process, Waupaca has established its own vision for sustainability and is actively strengthening management as well as promoting energy conservation measures, achieving great results.

1. Improving efficiency of cupola blast furnace
Waupaca Foundry's Plant 5 (Tell City, Indiana, United States) uses a cupola furnace to annually produce 250,000 tons of casting products which are primarily used for automobiles.

When air was blown to the cupola furnace, the air's high humidity caused problems that decreased the furnace's efficiency, such as increasing the amount of coke used and lowering combustion efficiency and combustion temperature.



MUNTERS® Dehumidification System schematic installed at Waupaca Foundry Plant 5.1

In order to prevent this, Waupaca installed a blast air dehumidification system consisting of a drying wheel to remove water vapor from the outside air before the preheating of the blast with a recovery heat exchanger. By taking this measure, Waupaca was able to reduce coke consumption by 2.5% (600 tons) and 1,902 t- CO₂ in FY2019, reducing the total energy consumption of Plant 5 by 0.7%.

Cupola blast furnace

2. Utilization of unused energy by installing a waste heat recovery system

Waupaca Foundry, Inc.'s Plant 2/3 (Waupaca, Wisconsin, United States) annually produces 445,000 tons of casting components, many of which are used for automobiles.

The area's temperature is low in winter, so Plant 2/3 consumes city gas for 70% of the energy it needs to heat buildings and for hot water, making for a large environmental load.

In order to reduce the amount of city gas used, in 2012 the Plant installed a system to recover waste heat from the melting furnace, and uses it as a heat source in winter. As a result of this measure, the Plant has achieved a reduction of 1,588 km³ of city gas.

In 2019, the Plant further improved the efficiency of the waste heat recovery system. Measures included the following: Strengthening the heat storage air unit, changing the pipe connection method from series connection to parallel connection, and building a new control system equipped with a monitoring function. Due to these measures, the Plant improved efficiency by 43%, additionally saving 680 km³ of city gas per year. Recovering waste heat over the two phases has allowed the Plant to annually reduce 2,268 km³ of city gas and 5,066 t-CO₂ emissions.

The above measures were praised by Wisconsin's energy efficiency program, "Focus on Energy," and the Plant received an incentive equivalent to 50% of the investment cost.

By implementing these measures, Waupaca Foundry, Inc., achieved a significant reduction of CO₂ emissions at 15% compared with FY2018.

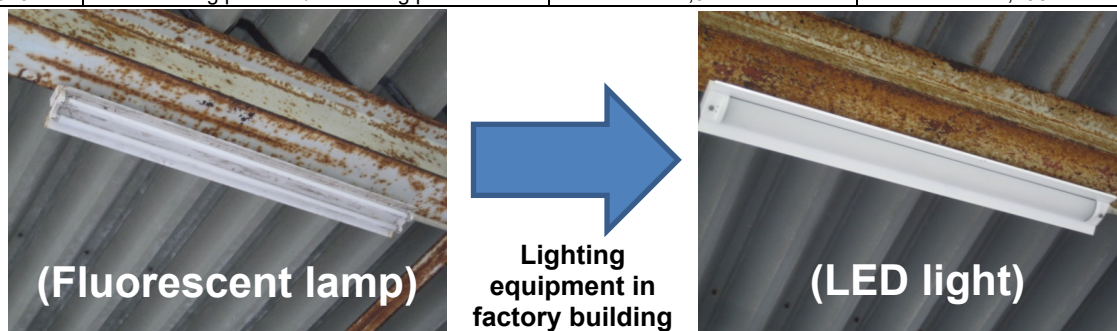


Waste heat recovery system

CO₂ reduction by switching to LED lights in the factory building (Ibaraki Works)

Since 2015, the Company has been relocating the research base and production facilities of Ibaraki Works' branch factory Hidaka Works to Ibaraki Works, aiming to establish an efficient production system and reduce costs through the integration of production as well as R&D sites. Taking advantage of this opportunity, Ibaraki Works installed LED lights in the buildings to which it was relocated. Since some of the lighting installation sites were in operation, there were places where work was not possible on weekdays because the work space could not be secured due to product transfers and equipment operation. Therefore, LED lights needed to be installed on days off, making schedule coordination with the production site difficult. Ibaraki Works focused on installing the LED lights without impairing the lighting in the building, and selected LED lights with a power consumption around one-third that of the previous lights. As a result, power consumption and running costs have been reduced. Since there are plans to relocate equipment in the future, Ibaraki Works will continue to promote the installation of LED lights.

(FY)	Main buildings/processes	Energy saving effect (kWh/month)	Amount of money invested (thousand yen)
2015	Research Main Building	11,477	37,302
2018	Power distribution parts factory, mechanical power factory, and device warehouse	21,575	16,043
2019	Braiding process / sheathing process	2,947	2,295



Efforts to save resources by installing equipment (Kyushu Works)

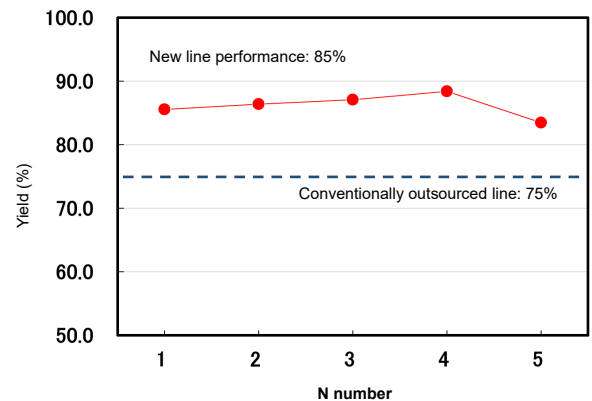
The Kyushu Works manufactures HERCUNITE™, a heat-resistant cast steel part used for exhaust systems of automobile engines. The green sand used in the process for casting HERCUNITE™ is made by mixing and kneading bentonite (clay), sand aggregate, and water to obtain the optimum sand properties. Then, the green sand is transferred to various processes such as molding, pouring, and mold disassembly. In these processes, a large amount of casting sand waste is discharged from the green sand mold line. In order to reduce industrial waste, the Kyushu Works recycles and reuses waste sand.

Recycling waste sand from green sand mold involves removing substances that adhere to the sand surface, such as fired clay products, resin, lubricants, and fine powder, as well as metals mixed in the waste sand, such as shot balls and burrs, in order to return it to the quality of new sand. In the past, this recycling process was carried out by an outside contractor, but last year the Kyushu Works installed equipment to perform the process in-house and started operating it in November 2019.

This equipment uses a batch-type grindstone polishing method because of its superiority in terms of both recycling cost and sand quality control. In addition to polishing the surface of the sand, the equipment collects and removes generated fine powder, improving the quality of the recycled sand. In the new sand recycling line, dust is collected at the optimum wind speed, and a recycled sand test room was installed for sand quality control. As a result of these measures, the Kyushu Works can control the emission of fine sand grains and has improved the regeneration yield rate by 10% compared to the conventional line of the outside contractor, and has achieved resource saving by reducing the amount of new sand purchased.



Sand recycling equipment



Regeneration yield rate

(6) Site Data

Materials Flow at Major Domestic Manufacturing Sites in the Hitachi Metals Group in Fiscal 2019

Classification	INPUT				OUTPUT									Main Discharge Destinations
	Raw materials, etc. (t/year)	Energy consumption (crude oil kl/year)	Water (thousand m3/year)	PRTR chemical substances (t/year)	Emissions (t/year)	CO ₂ ^{*1} (t/year)	SOX ^{*2} (t/year)	NOx ^{*2} (t/year)	BOD ^{*2} (t/year)	COD ^{*2} (t/year)	PRTR emissions ^{***} (t/year)	Transferred amount of PRTR ^{***} (t/year)	Drainage (thousand m3/year)	
Kyushu Works	5,857	32,151	178	3,513	25,317	47,630	0.0	4.6	0.0	0.7	14.0	67.5	40	Seto Inland Sea
Moka Works	35,274	26,730	344	54	14,459	50,491	0.0	1.0	3.5	1.3	20.3	33.8	253	Kinugawa River
Kuwana Works	9,368	17,031	400	23	14,680	36,874	1.1	5.4	0.0	0.1	3.8	5.2	373	Inabegawa River
Yasugi Works	111,784	148,969	5,296	16,593	48,132	377,961	20.0	175.6	0.9	16.6	0.6	287.4	5,159	Nakaumi Lake
Okegawa Works	1,218	22,099	234	901	1,057	42,140	0.4	9.9	2.9	3.5	0.0	5.7	234	Arakawa River
Kumagaya Light Alloy Plant	20,612	20,152	269	148	2,746	37,872	0.7	8.7	9.1	6.8	112.1	36.0	860	Arakawa River
Kumagaya Magnetics Works	8,628	29,116	583	148	1,397	54,222	1.3	0.0	0.0	0.0	0.2	2.1		
Yamazaki Manufacturing Dept.	39	2,317	50	3	294	4,223	0.0	0.0	0.0	0.1	0.2	2.8	37	Sewerage
Metglas Yasugi Works	15,543	7,627	0	5	269	19,377	0.0	0.0	0.0	0.0	0.0	0.0	0	Nakaumi Lake
Saga Works	0	7,178	50	11	292	10,084	0.0	0.0	0.0	0.0	0.0	0.0	50	Rokkakugawa River
Ibaraki Plant	142,136	39,080	1,110	2,011	7,030	72,784	0.3	8.3	18.5	16.4	27.0	66.6	893	Pacific Ocean Kazu sawagawa River, Juo River
HMY, Ltd.	0	9,490	10	14,228	1,239	24,290	0.4	0.3	0.0	0.0	0.0	0.0	4	Nakaumi Lake
Hitachi Metals Precision, Ltd.	2,709	8,747	15	2,525	4,101	21,732	0.0	8.8	0.0	0.0	0.0	0.1	4	Nakaumi Lake
Hitachi Metals Neomaterial, Ltd.	50,742	38,891	525	2,325	16,360	68,445	0.5	3.8	3.7	1.0	1.5	1.3	438	Sewerage Yoneshirogawa River
Hitachi Metals Wakamatsu, Ltd.	41,399	29,062	147	851	42,288	45,534	0.0	9.7	0.0	0.0	1.2	56.1	81	Sewerage
Hitachi Metals Tool Steel, Ltd.	0	6,576	19	0	1,854	11,942	0.0	0.0	0.0	0.0	0.0	0.0	14	Sewerage
Hitachi Ferrite Electronics, Ltd.	677	5,185	47	41	582	10,780	0.0	0.0	0.5	0.0	0.0	3.5	46	Sewerage
NEOMAX KINKI Co.,Ltd.	3,035	16,835	169	0	2,510	22,705	0.1	1.1	0.3	0.4	0.0	0.0	169	Maruyamagawa River
NEOMAX KYUSHU Co., Ltd.	8,093	9,573	58	68	1,304	14,592	0.0	16.2	0.0	0.0	2.4	2.1	41	Rokkakugawa River
Hitachi Alloy, Ltd.	5,881	2,900	147	106	519	5,357	0.0	0.0	0.6	0.8	0.0	0.0	146	Arakawa River
Tonichi Kyosan Cable, Ltd.	42,429	5,386	75	628	2,344	9,735	0.1	0.2	0.0	0.0	0.4	11.6	75	Kasumigaura
Tohoku Rubber Co.,Ltd.	1,581	1,645	77	39	599	3,740	0.4	0.5	0.5	0.6	20.2	4.4	68	Pacific Ocean

*1. Calculations of CO₂ emissions for electric power use the adjusted emission coefficients for each power company.

*2. Atmospheric emission concentrations measured based upon the Air Pollution Control Law and Water Pollution Prevention Act.

PRTR emission quantities are totals of emissions to the atmosphere, public waterways, and soil. PRTR Transfers are totals of transfers to waste materials and to sewers.