

# FURUKAWA BATTERY REPORT 2017

# > FOR SOCIETY

We will aim at penetration our "Business Management System" combining our former quality and environment management systems.

Maximum

Care for

andEn

# Overseas Business

Utilizing the technologies and know-hows we have accumulated in Japan, we will accelerate growth of our battery business in Thailand, Indonesia and Vietnam.

# Cutting Techno Field

We will make full efforts to create new business represented by magnesium-air battery MgBOX for emergency, and next-generation lithium-ion batteries.

By combining the products with renewable energy we will contribute to stable supply of electricity.

# Industrial Business

# Automobile Business

In the automobile battery segment, UltraBattery technology contributes to society by enabling efficient discharge and charge for idling-stop vehicles.

-Edge logy

Safety

**Johnen** 

Siam Furukawa received "Excellent Establishment on Labour Relations and Welfare Award 2016" from the Department of Labour Protection and Welfare in Thailand. The award-winning in this year means that we have received the award for the 11th consecutive year since 2006.

Awarded Excellent Establishment on Labour Relations and Welfare Award

# for the th Consecutive Year

# Management Principles

# We are challengers.

In order to meet the expectations of our diverse stakeholders, including our shareholders, employees, customers and local communities, Furukawa Battery will implement continuous innovation based on the technological capabilities we have fostered over many years, under a slogan of "always seeking to be challengers" and a corporate motto of "fairness and integrity." We will contribute to the realization of a truly rich and sustainable society as we seek to achieve sustainable growth and improve our corporate value in the medium-to long-term.



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## Editorial policy

Furukawa Battery manufactures and sells batteries that are designed to store energy and then use it when required. We are committed to producing environmentally friendly products, as a provider of energy supply systems that form an essential part of people's everyday lives. We have edited this report with the aim of concisely outlining our initiatives based on our targets, results and activities, as well as specific examples.

While editing this report, we have made all possible effort to produce a report that adheres to the frameworks of the "G4 Sustainability Reporting Guidelines" of the Global Reporting Initiative and the "Environmental Reporting Guidelines (Year 2012)" of the Ministry of the Environment (Japan Government). As a part of the Furukawa Battery Group's efforts to address the 7 core subjects of social responsibility outlined by ISO 26000, we created the following marks.

Community involvement and development	lvement Human rights Labor practices		Environment
Fair operating practices	Organizational governance	Consumer issues	

#### Organizations covered by this report

This report covers The Furukawa Battery Co., Ltd. and all of its consolidated subsidiaries. Environmental data relates to Furukawa Battery's Iwaki and Imaichi Plants.

#### Reporting period

Fiscal 2016 (April 2016 - March 2017)

#### Date of publication

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#### Inquiries

Environment Department, Corporate Strategy Planning Department, The Furukawa Battery Co., Ltd. Phone :+81-45-336-5055 Fax :+81-45-333-2534

This report has been compiled using the latest information at the time of editing and includes some information prior to fiscal 2016. Please bear in mind that forecasts and other forward-looking statements are subject to change. Actual results may vary due to any number of reasons.

## [Guidance on the homepage] http://www.furukawadenchi.co.jp/english/

We show more detailed information about CSR of Furukawa Battery on a homepage.

# TOP MESSAGE

Katsutoshi Tokuyama, Chairman of the Board 1972 Joined Furukawa Battery 2001 Member of the Board and Head of Automobile Battery Group

2010 Executive Vice President and Member of the Board 2012 President & CEO (Representative Director) 2017 Chairman of the Board

#### Shinichi Ono, President & CEO

1978 Joined the Defense Agency 1991 Joined Furukawa Battery 2012 Member of the Board, Corporate Officer and Head of **R&D** Institution

- 2016 Senior Managing Director, Member of the Board, Executive Corporate Officer and Head of R&D Institution 2017 President & CEO (Representative Director)

# Furukawa Battery will continue to move forward to new stages for achievement of stable growth as a company that supports society with "our capabilities to store, convert and monitor electric energy."

In the history of more than 60 years since its foundation, Furukawa Battery has consistently provided the value to "store energy temporarily and use it when needed" through manufacturing and sales of batteries and power supply systems.

In the current situation where various global-scale agreements and roadmaps have been made to address climate change, storage batteries play a critical role in efficient use of eco-friendly cars and renewable energy. It is expected that demand for high-energy-density storage batteries would increase. As the result, requirements for safety and reliability of the products will be more stringent and we will need to address such requirement in a more appropriate manner.

Under such circumstances, we entered our new growth stage in the fiscal year ended March 2017, which was set as the initial year of "Medium-Term Vision 2018 (2016-2018)" and starting point of the "5 years of action," the second phase of our long-term management vision "Dynamic Innovation 2020." We not only tried to expand and streamline the existing growth business, but also actively made efforts to create new business through cross-industrial collaboration and to make new capital alliance or collaboration with companies in overseas countries. As the result, consolidated net sales in the fiscal year ended March 2017 increased by 2.2% to 55,300 million yen and operating income increased by 13.9% to 3,300 million yen; we achieved increases in both sales and income.

At the general meeting of shareholders held in June 2017, Katsutoshi Tokuyama, the former President of the Company, was elected as the Chairman, and Shinichi Ono took office as the President & CEO. Having played a role of the leader in construction of plants in Iwaki and Indonesia, Tokuyama was in charge of overall management of the Company. Ono has consistently engaged in technical development since he joined Furukawa Battery and has greatly contributed to the business growth by various activities including development of new products.

In a society that is changing at an unprecedented pace, we think that it is important for us to increase the speed of business management and provide new technologies and products in a timely manner. By doing so, Furukawa Battery will be able to continue to expand its business sustainably and contribute to society and environment through its business. Election of the new management indicates the Company's directionality to accelerate business growth by strengthening technical development activities further.

Furukawa Battery will continue to challenge more than ever and will strive for not only business expansion and increases in sales and income, but also creation of social value, which is our ultimate goal. At the same time, we will identify the true value of our storage battery and power supply system business again and will make full efforts to consistently realize our newly-stated corporate mission: "We will support society with our capabilities to store, convert and monitor electric energy."

I will greatly appreciate further guidance and encouragement by all our stakeholders.

July 2017 The Furukawa Battery Co., Ltd.

Katsutoshi Tokuvama.



Shinichi Ono President & CEO

# Furukawa Battery management strategy

Our long-term management vision "Dynamic Innovation 2020," which started from the fiscal year ended March 2012, gives a guideline of our growth strategy in next 10 years and shows what we should be like in 2020. Taking into account the condition that drastic expansion of existing markets in Japan is hard to expect, we implement the strategy to expand our operation aggressively to overseas, in particular Asian countries, and to set creation and development of new business as a pillar of our growth. Furukawa Battery is currently in the second phase of the long-term management vision.

In the fiscal year ended March 2017, which was positioned as the first year of the second phase, we focused on buildup of our subsidiary in Thailand and manufacturing of eco-friendly cars, which were defined as the prioritized domains in the first phase of "gaining a strong foothold." In addition, we are aggressively making efforts to create new business under new business

Key words for achievement of long-term management vision

Radical pursuit for safety and quality

Expanding existing business and developing new business Further increases in sales and income by enhancing business style

Further acceleration of global operation

# **Business summary**

## Outline of business

# Automobile business



 Manufacturing and sales of lead-acid storage batteries for automobiles including eco-friendly cars, which are supplied to Japanese automotive manufacturers and meet demand for replacement or repair

 Manufacturing and sales of lead-acid storage batteries for automobiles through subsidiaries in Thailand (SFC) and Indonesia (FIBM)

# Industrial business



 Manufacturing and sales of industrial-use storage batteries (lead-acid storage batteries, alkaline storage batteries and lithium-ion batteries for space exploration) and power supply systems (DC and AC power supply systems), etc.

Main customers: Local governments, railway companies, electric power companies, telecommunications carriers, electric machine manufacturers and communication equipment manufacturers

# Real estate business

•Real estate leasing and building management through HD Holdings Co., Ltd., a consolidated subsidiary



■ Net sales ■ Operating income --- Ratio of operating profit to sales (Unit: million yen)



Others

•Manufacturing of resin molded products through Daiichi Giken Kogyo Co., Ltd., a consolidated subsidiary, etc.

scheme, such as capital or technology alliance with overseas storage battery manufacturers, and establishment of a joint venture with a Japanese university to develop next-generation lithium-ion batteries.

A period extending from the fiscal year ended March 2017 to the fiscal year ending March 2019 is important for us, because we need to achieve the "Medium-Term Vision 2018" and lay the foundation toward next 10 or 20 years after conclusion of the long-term management vision. Now, we focus our corporate philosophy, the foundation of our corporate practice again, and share the value such as "sincerity and integrity," "contribution" and "challenge," all of which are good DNAs of Furukawa Battery, among all employees. By doing so, we will be able to move forward to sustainable development and growth on a stable manner on the new stage.



### Prioritized domains

## Product examples

#### Batteries for automobiles

- •Facilitation of overseas expansion of manufacturing, technologies and human resources by designating lwaki and Imaichi Plants as the "mother factories."
- •Further enhancement in profitability of overseas bases



#### Industrial-use storage batteries

Made in Thailand

- Promotion of business innovation and cost reduction through expansion and development of the Imaichi district
- •Strengthening alliance with storage batteries partners in overseas countries (China, Vietnam, etc.)
- •Enhancement in engineering works and support systems







Storage battery for emergency use including emergency lights

for railway cars

\* Net sales in each segment on the left page included inter-segment sales or transfer.

Achieving long-term management vision, "Dynamic Innovation 2020"

# Target for FY2020:

Net sales: 98,000 million yen

Operating income: 9,000 million yen

Ratio of overseas sales: 60%

# We provide the value that meets needs of the time and customers.

The Furukawa Battery split away from Furukawa Electric and began operation in 1950. Since then, we have contributed to society and the time as an expert of batteries and power supply systems for more than 60 years.



Commercialization of storage batteries for aircraft

> Completed company-wide certification under ISO 9001 (2000)

2002

Succeeded in development of C21, high corrosion

resistance alloy, and applied it to lead-acid

storage batteries for automobiles

Commercialization of ready-to-use storage batteries that required no initial charge

195

1952

Won the Deming Prize for the first time in storage battery manufacturers Developed aluminum storage batteries

Developed storage batteries for satellites

1966

1968

Founded as the Furukawa Battery

1950



\* The above graph shows non-consolidated net sales. \* The figure for FY1950 indicates the net sales of 9 months extending from Sep. 1, 1950 to May 31, 3rd fiscal years). The figures from FY1951 through 1965 indicate the sum of 2 terms, because every half year is counted as one term.



1951 (the 1st fiscal year). The figure for FY1951 indicates the net sales of 10 months extending Jun. 1, 1951 to Mar. 31, 1952 (i.e., sum of the 2nd and

# Value creation process

# For realization of sustainable environment and society

The Furukawa Battery has provided batteries and power supply systems that meet needs of the time and society in terms of safety, eco-friendliness and user-friendliness by combining management and CSR, and has been committed to creation of new added value

## Social challenges to be resolved

Furukawa Battery's initiative to





Photograph: By the courtesy of JR East

## Securing power supply at the time of disaster



# ightarrow Prevention of global warming



# Further progress of technical development







# resolve s<u>ocial challenges</u>

Creation of values to share with society

# Technology to store energy required by social infrastructures

Various types of batteries that can supply energy in a stable manner even under harsh conditions

Batteries for automobiles
Batteries for motorcycle

• DC power supply systems, etc.



ECHNOIS

Magnesium-air batteries for emergency are packaged in paper containers and generate electric power just by pouring water into it.

# Technology to store renewable energy

Batteries for wind power generation and solar power generation panels



# Technology to support space development

Batteries for satellites and planetary probe



# Values for SOCIETY

- Safe and comfortable life
- Mitigation of problems at the time of disaster
- Enhancement in global environment
- Enjoying benefits from science and technology, etc.



# Values for the Furukawa Battery

- Enhancement in profitability
- Strengthening of financial position
- Acquisition of new markets
- Enhancement in brand value
- Improvement in building-related technology
- Securing of stable sales and income
- Increase in expertise of human resources
- Enhancement in employees' motivation
- Coexistence with local communities
- Ensuring of business continuity, etc.



# Furukawa Battery's products serve society by labouring in the background.

In transportation systems such as automobiles, trains and ships, our products are used as the energy to actually make these systems go.

Our products also provide the energy for batteries in reserve to support the various fields in which companies are now dependent on advanced IT systems, and also highly reliable power supply for space development. In fact, the technology of Furukawa Battery can be found in all aspects of life.





# New Product Introduction

Here are Furukawa Battery's new products that will contribute to the development of society and the time and will create bright future.

#### Battery for automobiles

Battery for hybrid vehicles with stop-start systems

# **ECHNO IS UltraBattery**

#### Addition of K-42/B19L and K-42R/B19R

ECHNO IS UltraBattery is the world's first battery for hybrid vehicles with stop-start systems, in which capacitor electrode is combined with the existing lead-acid battery to take advantage of the benefits of both. Now, in order to meet increased demand for light vehicles, K-42/B19L and K-42R/B19R are added to the product lineup.



1st

in the

world

Patent

granted

#### Feature 1 Speedy recovering charge

The recovering charge becomes speedier by enhancing charging acceptability; the speed is improved by 30% compared to conventional products.



# Feature 2 Life span is substantially improved (doubled).

K-42 R/B19 R

Life span is almost doubled compared to conventional products by the method of suppressing sulfation.



#### Specifications

Battery type (p	roduct number)	Voltage	htage Capacity at Approx. sizes (mm)		n)	Approx.	Shane of	Terminal																																	
L type	R type	(V)	(V)	(V) 5-hour rate (Ah)	Maximum overall height	Total height	Width	Length	electrolyte (kg)	cover	position	Accessory																													
K-42/B19L	K-42R/B19R		28	227	200	125	185	10.0	Flat type																																Indicator
M-42/B20L	M-42R/B20R		33	227	200	128	196	10.7		R type	Handle																														
N-55/B24L	N-55R/B24R	12	36	227	200	128	237	13.2			protection plug																														
Q-85/D23L	Q-85R/D23R		54	225	200	172	231	17.2			Installation date seal																														
S-95/D26L	S-95R/D26R		64	225 200 172 259 19.7	1	0	Terminal protection cap																																		
Type of grid: calcium																																									

### Battery for automobiles

Specialized battery for TOYOTA cars

# ECHNO EN 375LN2

The Furukawa Battery has developed the battery specifically designed for TOYOTA cars. The battery also adopts "European Norm" known as the unified standard across EU.

# Feature 1 A wide variety of capabilities specifically designed for TOYOTA cars

The battery provides a wide variety of capabilities specifically designed for TOYOTA cars: "collective exhaust structure" enabling to install either in the engine compartment or cabin, "vent plug" that prevents gas diffusion to the cabin and enables to refill the electrolyte, and "electrolyte level indicator" and "white battery container" that indicate the level of the electrolyte.

#### Special designs

 $oldsymbol{1}$  Vent plug enabling to refill the purified water

- Collective exhaust structure enabling to install either in the engine compartment or cabin
- 3 Electrolyte level indicator and white battery container that indicate the level of the electrolyte
- A Safety design to mitigate the risk of explosion caused by short circuit



### Specifications

_	Voltage	Capacity at	Overall Dimensions (mm)		Approx.	Shape of	Polarity	_	
Battery model	model (V) 20-hour rate Maximum height Width Length electrolyte (kg) cover		cover	position	Accessory				
375LN2	12	60	190	175	242	15.8	Flat type Collective exhaust structure (with flame arrester filter)	L type	Indicator Handle Installation date seal Terminal protection cap

## Topics

Industrial-use storage battery

# Lithium-ion Battery Power Supply Unit for Stand-alone

- Because there is no limit for power supply, the unit can be placed at everywhere including outdoor places.
- Because no wiring work is required, installation cost can be reduced.
- Optimized operation with LIB for BMS

Thanks to high-capacity power supply, the unit can operate during a power failure.

#### Specifications

	Ba	att	erv	pa	rt
-	20		<u> </u>	pu	

Battery voltage	48V system	
Battery capacity	(A vending machine can be operated ) for about 24 hours.	

#### Power supply part

Output voltage	Single phase AC100V
Output capacity	1kVA

#### Application

Lithium-ion batteries for vending machines Joint development with JR East Water Business Co., Ltd.

Sizes	W 370mm × D 650mm × H 1,830mm
Weight	Approx. 200kg (including battery module)
<u> </u>	

Ongoing operation test at the side of the escalator leading up to the Chuo line platform at Marunouchi North Entrance of Tokyo Station.



# Safety design to mitigate the risk of explosion caused by short circuit

Wider space between the upper level and lower level ensures sufficient quantity of the electrolyte. This design mitigates the risk of explosion caused by short circuit. In order to meet the high quality standard of TOYOTA cars, the product for Japanese market is designed to ensure higher safety.



### Feature 3 High capacity

Feature 2

In comparison with battery performance rank of a OEM product (355LN2), Furukawa Battery's proprietary technology ensures higher capacity (375LN2).

# Special Feature 1 FOR FUTURE

# **To Meet More Needs** To Be More Eco-friendly

## Design and development taking into account all the steps including disposal

As batteries for automobiles and nickel-cadmium storage batteries are often designated as inappropriate disposable wastes by local municipalities, the users are required to dispose of such batteries via the routes provided by the manufacturers. The MgBOX series are designed by considering users'

convenience including final disposal of the products; they contain no hazardous materials and use paper container, so that they can be disposed via a regular waste disposal route. (We communicated and explained to local municipalities receiving the wastes about how to dispose the wastes of the products.)

# MgBOX has become the Green Purchasing Law-compliant product.

Thinking that review of the Green Purchasing Law is necessary to meet the demand in the time of smartphones, we proposed the idea of the "portable power supply systems for emergency" that can be stored for emergency, as one of the "designated procurement items." On February 7, 2017, the cabinet approved to add the "portable power supply systems for emergency" to the list of the designated procurement items. Because of this cabinet approval, MgBOX has become the Green Purchasing Law-compliant product.

The Law concerning the Promotion of Procurement of Eco-Friendly

Goods and Services by the State and Other Entities (Green Purchasing Law) stipulates that public institutions including the government take the leading role for procurement of so-called eco-friendly goods (products and



services that contribute to reduction of environmental load) and provide appropriate information about eco-friendly goods, in order to shift the demand for eco-friendly goods and construct the society that develops sustainably.

# What are the portable power supply systems for emergency that can be stored for emergency?

 The products mean power supply systems for emergency that generates power by an air battery for charging and power feeding to devices such as mobile phones.

Judgement @Product's warranty period or recommended period for using must be 5 years or longer.	d for using must be 5 years or longer.	Note
		Note

Product name	Battery type	Output energy	Warranty period	No. of charges to a smartphone	Waste separation
MgBOX	Magnesium-air battery	300Wh	5 years	30 times of full charge	Waste can be separated easily. As waste paper is
MgBOX slim	Magnesium-air battery	200Wh	5 years	20 times of full charge	package, the product can be recycled after use.

The above information is also featured in the Green Purchasing Network.

http://www.gpn.jp/econet/



Furukawa Battery is a proud member of the Green Purchasing Network  $_{e}$ .

# of Society



# Choose safer products for emergency.

# MgBOX was selected as the recommended product for fire safety and disaster preparedness.

The MgBOX was also selected as the "recommended product for fire safety and disaster preparedness" by Fire Equipment and Safety Center of Japan.

The recommended products must satisfy the following requirements: the product can be used effectively in the fire safety and disaster preparedness field; the product is the one that is newly invented or improved; and the product contributes to enhancement in convenience, efficiency and safety of the above field.



# A place where a portable power supply system for emergency is effectively used.

# MgBOX units were emergently dispatched to the damaged area of the Kumamoto Earthquake.

Our Iwaki Plant and Tohoku Branch were damaged by the Great East Japan Earthquake. Based on the experience at that time, we commercialized magnesium-air battery "MgBOX" for emergency and made efforts to popularize the product.

After the Kumamoto Earthquake, we contributed 390 units of MgBOX to Kumamoto Prefecture, in hope that the products would be of help for the people suffered from the Earthquake.

Sympathy and activity for the suffered people were not only owned by the company, but shared by employees: for example, young employees took a lead to raise the money for the suffered people. As the company who has experience of being damaged by the earthquake, we continue to contribute to society.



The President also participated in loading of the gift.

### Presentation and product display in the international media center for the G7 Ise-Shima Summit

In May 2016, on the request by the Cabinet Office of Japan, MgBOX was displayed as "the exhibit to show Japan's cutting-edge technology specifically, as well as the power supply system for emergency" at Japanese Government's Exhibition Space in the international media center for the G7 Ise-Shima Summit.



# Special Feature 2 FOR FUTURE

# Human Resource Development Program

# Our Human Resources & General Affairs Department is pulling



 General Manager, Human Resources & General Affairs Department

Takahiro Asahara

This training is positioned as the first phase of development and education of global human resources, and its objective is "experiencing different cultures."

Specifically, we think that what is important to experience different cultures is not only knowing the "difference" by the language, custom, life style, history, culture, way of thinking and economic status, but also seeing the difference by own eyes, hearing it by own ears, smelling it by own nose, tasting it by own tongue, expressing it by own words, feeling it through own skin and realizing it by own body.



#### $\gg$ Future training plan

The wave of globalization is quickly sweeping not only the overseas countries, but also Japan. It may take time, but we are planning to develop the work environment and corporate culture that can accept "diversity" through the global human resource training and its accompanying job rotation.



# much energy into training global human resources.



Siam Furukawa Co., Ltd.

# Yuki Shimomura

In the commutation training session with Thai staff, some trainees were not good at English. At first, it was hard for them to communicate with Thai staff, but they were able to communicate gradually one another by sometimes using body language.

Direct communication with Thai staff taught them how difficult to communicate with others is and how important to learn foreign languages is. Voice

#### <u>Voice from trainee</u>

> Environment Department

# Chika Hasuike



In overseas training, you have to communicate with others in English, even if you are not so good at. It was very hard for me to communicate with local employees, because I always needed to think how I should express my feeling to them and how I should communicate with them. But I really had a good time.

In addition, I was able to feel the market status, history and food culture of Thailand by myself through comparison with Japan. I truly understood that it is important to communicate with others.

For young employees of the Company that is expanding its operation to overseas markets, I think such experience is very important.

# Special Feature 3 FOR FUTURE

# What an honor! Dr. Furukawa, Senior Fellow,



# received the Gaston Plante Medal.

## 10<sup>th</sup> International Conference on Lead-Acid Batteries "LABAT' 2017"

At the 10<sup>th</sup> International Conference on Lead-Acid Batteries "LABAT' 2017" held in Bulugaria Golden Sands Resort from June 13 to 16, 2017, Dr. Furukawa, Senior Fellow of the Furukawa Battery, received the "Gaston Plante Medal".

The awarding ceremony takes place every

3 years, and this year, the prize was awarded to Dr. Furukawa and Dr. Papazov. This is truly brilliant achievement, because Dr. Furukawa is the first Japanese who received the award since Emeritus Professor Zen-ichiro Takehara of Kyoto University had been given the award in 2005.



## About the Gaston Plante Medal



Gaston Plante, a French scientist, invented the lead-acid battery that consisted of a spiral roll of two sheets of pure lead separated by a cloth and immersed in sulfalic acid solution in 1859. In 1860, he presented a nine-cell lead-acid battery to the Academy of Science. Based on his invention, lead-acid batteries were used as the power source of electric automobiles in earlier years.

From 1950s, a line of deserving electrochemists have received the Prix Gaston Plante. In 1989, on the centenary of his death, The Bulgaria Academy of Science took over the Gaston Plante Medal, which is awarded every few years to scientists, who made significant contributions to the development of lead-acid battery technology.

# SOCIAL

By providing "quality that is trusted," we will deepen the relationship with local communities for further contribution.



# Quality improvement initiatives

# Examples of quality improvement initiatives

#### Integration of ISO9001 and ISO14001 management systems

In September 2015, the 2015 revisions were made respectively for ISO9001 (quality management) and ISO14001 (environment management).

As the major section numbers were changed in these revisions, we integrated both the management systems

into a single system called Operation Management System, which is used from April 2016.

(ISO9001 (2015) :Certified and registered in August 2016, ISO14001 (2015):Certified and registered in February 2017 and to receive integration examination in July 2017)

The following chart illustrates the image of operation system after the integration:



The aim of this newly integrated structure is to consolidate internal auditing and periodical inspections that were conducted separately by each function, in order that we can facilitate enhancement in performance and streamlining of operations (for easiness to understand and use, elimination of waste, and transformation from partial optimization to total optimization) as well as reduction in cost (such as reduction in internal cost relating to maintenance and management duties, and decreases in numbers and workload of inspections).

As full-fledged operation of this management system started, we held training session about this system for newly recruited employees in April 2017.

The main objective of this session was to learn the basics of the activities leading to "continuous improvements" by focusing on both quality and environment aspects (i.e., customer satisfaction, environmental aspect and compliance obligation).



Training session

uman rights

Labor practices

vironment

Fair operating practices

Consumer issues

# Company-wide QC Circle Competition

The "40th Company-wide QC Circle Competition" in fiscal 2016 was held at Iwaki Plant.

In the competition, total 12 circles including circles that came out on

top in each block competition provided presentations.

This year as well, each circle has conducted activities that reminded each employee of the guiding principle and objectives of QC circle activities.

[Guiding Principles]	<ol> <li>We give each employee an opportunity to display his or her ability to the full.</li> <li>We respect human nature. ⇒ We will create positive and meaningful workplace.</li> <li>We contribute to structural improvement and development of our company.</li> </ol>
[Objectives of activities]	<ol> <li>Improvement in skills and self-fulfillment ⇒ creation of positive, meaningful and vibrant workplace.</li> <li>Enhancement in customer satisfaction ⇒ Contribution to society</li> </ol>

President Tokuyama (current Chairman) commented, "I would like to thank all the people who engaged in preparation of the "40th Company-wide QC Circle Competition" and who entered in the competition. All the judges including me felt that it is hard to score each performance, because the level of the competition has been incredibly enhanced. I think that QC activities by these small groups will be reflected in Company's quality enhancement. I would like to extend my deep gratitude to all of you."

We will continue to accumulate our small improvement in QC activities one by one for further quality enhancement.

\* QC circle…QC is an abbreviation for Quality Control.

The circle refers to the activity of groups formed at the same workplace to improve quality.



On December 4, 2016, FIBM Family Day was held Padepokan Voli at Bogor Plateau, which is about 3 hours away by bus.

Total 249 employees participated in this event and played various games including water

polo and valley ball using a fabric ball to strengthen the unity and collaboration among them. We believe that holding such event every year will help us grow to a wonderful company where employees unite as one.

Photograph of participants taken after the competition



\* FIBM ... PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING



# SOCIAL

### Connecting with the stakeholders who use our products

As we always put the customer first, we strive to provide products and services that will keep our customers satisfied.

With that in mind, we work as a team to maintain and improve quality standards to the satisfaction of our customers, and are committed to developing new products, for contribution to society.

We take measures for quality assurance by ensuring that each division, including Research and Development, Production Technology,

Purchasing and Sales, fulfills the respective responsibilities. To get customers to appreciate our technical development capabilities and the features of our product and to build strong and long-lasting trusting relationships with them, we publish a technical research journal called FB Technical News. This is just one of the ways in which we actively and continuously provide information, along with exhibitions, product catalogs and our website.

## Technology Seminar held in Hong Kong

On May 22, 2016, Automobile Technology Department held technology seminar of automobile battery for DAH CHONG HONG LTD., a Furukawa Battery agent in Hong Kong.

The seminar, which was held for the first time since 2013, 3 years ago, took about one and half hours, total 70 participants listened to the lecture enthusiastically followed by active questions and answers session, which made the seminar significantly meaningful.

Many questions were about stop and start system cars, and we explained that this system is featured in many Japanese cars. Because it is expected that more cars with this system will be exported to Hong Kong in the near future, we introduced UltraBattery, one of FB products, to the participants, with an aim of expansion of the FB product portfolio in Hong Kong market.

After the seminar, nearly 100 people participated in the dinner party. We expressed our gratitude about sales of FB products to the participants and exchanged information with them. In this party, we were able to deepen the relationship with them.

Next day, we visited stores selling FB products and ones selling competitors' products, and checked the market trend.

We hope that the seminar will help the FB brand penetrate further into Hong Kong market and receive more popularity.



At the Seminar



At dinner party



Store selling FB products

## CSR-DIW Continuous Award from Ministry of Industry for the 6th consecutive year

In recognition of efforts in CSR activities, Siam Furukawa was awarded the "CSR-DIW Continuous Award 2016" from the Department of Industrial Works, Ministry of Industry in Thailand.

Siam Furukawa received it for the sixth consecutive year from CSR-DIW in 2011.

The Department of Industrial Works (DIW), Ministry of Industry now suspends the rating by ranks. However, when they

start the rating in the future, we will aim at the highest rank of Level 5 (Green Network) by continuing CSR activities.

\* Because we received CSR-DIW Advance Award Level 4 in 2013, the next rank is the highest rank of Level 5.



Certificate of commendation



Employees who received the award

#### Awarded Excellent Establishment on Labour Relations and Welfare Award for the 11th consecutive year

Recognized for its outstanding labour relations and welfare, Siam Furukawa received "Excellent Establishment on Labour Relations and Welfare Award 2016" from the Department of Labour Protection and Welfare in Thailand. Winning this award in this year means that we were awarded it for the 11th consecutive year from 2006. We will strive to continue outstanding labour relations into the future.



Commemoration photo with the employees who received the award

Scene of in-company event

## Siam Furukawa received the Award for TPM Excellence, Category A

Recognized for its outstanding TPM activities, Siam Furukawa received the "Award for TPM Excellence, Category A" from Japan Institute of Plant Maintenance.

Based on this TPM activities, we will continue to improve our workplace without any compromise to produce higher-quality products.

<sup>\*</sup>TPM (Total Productive Maintenance): TPM is a management method that allows manufactures to create systems and frameworks for continuous human recourse development and work and facility improvement, so that they can build corporate structures ensuring to secure profit in a sustainable manner. (Product maintenance and management involving all employees)





Certificate of commendation

Employees who received the award

# SOCIAL

# Contributions to local communities

## Participation in the "Furukawa Forest" tree-planting by the Tochigi Furukawa Group

On April 21, 2016, the "Tochigi Furukawa Group," employees' group of the Furukawa Group companies, participated in a tree planting activity conducted on the valley in Matsuki District in Ashio-machi, Nikko City. In the great scenery called "Japanese Grand Canyon," group members worked hard to plant trees. On the day that had no wind and was surrounded by warmth of spring, 77 participants from 26 Furukawa Group companies got united and planted 40 nursery trees of Sargent cherry (Prunus sargentii Rehder). We plan to plant trees in approx. 600m<sup>2</sup> every year in the future and continue this activity for another 20 years: this was the third year for us. We will continue to participate local activities like this and deepen the relationship with one another.



Photograph of activity

# Participation in the Healthy Walking Exercise Voice from participant



Photograph of participants On October 8, 2016, we participated in the 15th Healthy Walking Exercise that were held by the Nikko District THP Promotion Council at the Maruyama Park in Nikko city. Although it rained heavily on that day, 71 members from 12 companies participated in the event. All the members did their best and walked the whole distance of the total 8km course to go and return 4km-long road starting from the Maruyama Park and making a turn at the Tokorono Sports Park.

After the walking exercise, we enjoyed the usual lottery event, and the walking exercise concluded without any reported injury. I hope that we will aggressively participate in this walking exercise for my health next year again.

# Cleanup activity at the local Misaki Park in the "Iwaki Furukawa Group"

The "Iwaki Furukawa Group," employees' group of the Furukawa Group companies in Iwaki city, conducted a cleanup activity in Misaki Park, a famous sightseeing spot of the city located in a vast area equivalent to about 15 times of Tokyo Dome.

This is the second time for us to conduct the cleanup since 2015 when we restarted the activity after the Great East Japan Earthquake.

Under beautiful April sky, as many as 130 people who were 14 related companies' employees and their families picked up garbage including PET bottles, empty cans and plastic bags, and sorted them into prescribed garbage bags. In addition, we cleared garbage hidden behind weeds and trees to prevent children in the park from being injured.



Cleanup activity

Fair operating

Organizationa governance Consumer

# Participation in Yappe Dance Competition

Employees in our Iwaki Plant participated in "Yappe Dance Festival," an event presented by the Iwaki-Yumoto Hot Springs Tourism Association.

"Yappe Dance Competition" was restarted in 2012 after the earthquake, in hope to invigorate the Tokiwa district. In this event, participants parade the street while dancing esthetically and chanting "yappe, yappe, yappena...."

Iwaki Plant has participated in this competition every year. In 2015, we won the second best prize, and in 2016 when about 40 young and cheerful employees participated, we finally reached to the top of the competition.

We will continue to make efforts for revitalization of the area and ties with the local community, in order to show Furukawa Battery's presence in the area.



Photograph of participants

## WORLD ECONO MOVE



We co-sponsored the 24th WGC Solarcar Rally 2016 held in Ogata village, Akita. In the competition, total 44 teams participated.

We supported the Tamagawa University team that featured the world's first "hybrid solar car combining solar power with a magnesium-air battery," in order to show that magnesium-air batteries can be mounted on fuel cell vehicles.

Photograph of participants

## Co-sponsoring marathons in Yokohama, Imaichi and Iwaki

As the Furukawa Battery has its head office in Yokohama and plants in Iwaki and Imaichi (Nikko) with abundant nature, many employees participate in local marathons.

In the Yokohama Marathon, our employees participated not only as runners, but also as volunteer staff.

We hope that this type of participation will continue in the next Yokohama Marathon to be held in October 2017, because this event gives us an opportunity to let all employees unite as one.

Participant in volunteer activity



# SOCIAL

## Co-sponsor of Asia Cross Country Rally 2016

In August 2016, we co-sponsored the Asia Cross Country Rally 2016 that covered total distance of 2,000km extending from Pattaya, Thailand to Angkor Wat in Cambodia. This rally is known as the one of the Asia's largest rally, and Director Ota of the Furukawa Battery attended the pre-rally event and ceremony to celebrate the 21st anniversary of the rally and presented batteries for rally cars.

Among many participants from all over the world, TEAM FB JAPAN, a two-wheeled vehicle team, won the grand-prix in the team award category, and 2 racers of TEAM FB INDONESIA succeeded in running the whole distance.

We plan to co-sponsor the event in 2017, as well. We hope that we will continue to contribute to progress of Asian motor sport.



TEAM FB JAPAN



Scene in the race

### Co-sponsor of "King's Cup FB Battery River Kwai Half Marathon Thailand Championship 2016"

Siam Furukawa co-sponsored "King's Cup FB Battery River Kwai Half Marathon Thailand Championship 2016," an event that was held in Kanchanaburi Province for the first time, as the main sponsor of the event on December 11, 2016.

This event is only one half-marathon competition that was allowed to use the title name "King's Cup" by the Athletic

Association of Thailand. The race course includes the River Kwai Bridge known for movie "The Bridge on The River Kwai," and more than 5,000 runners participated in the race.

In 2017, the event is scheduled to be held on December 10. We will continue to co-sponsor the event.

https://www.facebook.com/riverkwaihalfmarathon/





Photograph of runners

Scene from the race

Human right

Labor prac

Environment

Fair operating practices Organizational governance

Consume issues

# Exhibiting at the International Secondary Batteries Exhibition

In this year, we have exhibited our products at many exhibitions.

Among them, the International Secondary Batteries Exhibition attracted most visitors, and many visitors including those from overseas countries visited our booth, in which we were able to introduce our products and show the history of our activities until now.

> We were certified as a Hama Road supporter by the Hodogaya Civil Engineering Bureau of Yokohama City in December 2016. As a local volunteer group, Hama Road supporter cooperates with the local government to engage in beautification and cleanup of the road in local communities.

> Once a month, about 10 volunteers conduct the cleanup activity. Warm messages of gratitude from some passersby let the volunteers work with pride.

Based on a perception that companies are supported by society, all employees in the head office will participate in this activity, in order to continuously contribute to regional society.

#### Cicultup di

ศนย์บริการนักท่องเทียวเขาใหญ

Forest cleanup activity

In March 2016, Siam Furukawa conducted an activity to clean up the forest in Khao Yai National Park.

More than 50 employees participated in this activity and walked along an about-4km-long trail in nature to pick up garbage. In addition, they presented 60 batteries to the National Park Protection Bureau.

We believe that by continuing such an activity, we will be able to contribute to regional society, if only a little.

Photograph of participants in volunteer activities

ขอมอบแบตเตอรี่จำหวน 60 ลูก







Our booth at the exhibition

Certified as a Hama Road supporter

**FURUKAWA BATTERY REPORT 2017** 

# ENVIRONMENT

While strengthening ties with local communities we work to preserve the global environment



# Contributions to the global environment

Our policy on the environment and efforts made for the environment

#### Specific EMS efforts in the business management policy for our policy on the environment

Our quality management system and environment management system have been integrated; activities based on our business management manual begin in fiscal 2016.The followings are our environment management system's activities specifically designed as measures against the significant environmental problems such as CO<sub>2</sub> emission and waste products:

- In order to build stable management foundation, we aggressively expand our activities to preserve the global environment and to build sustainable society. Specifically, we clearly define the target of each division through penetration of the Business Management System and facilitate activities for promotion of the management system involving all employees.
- 2. We strive continuously to improve our environmental preservation activities, while observing environment-related regulations associated with the activities, products and services offered by the Division and agreements with the local authorities.
- 3. We promote environmental preservation activities, placing importance on the following items in each of the fields of order-taking and agreements, design and development, purchasing, manufacturing, and providing service, which is the main work of the Division.
  - (1) Saving energy to prevent global warming;
  - (2) Reducing waste products and promoting recycling to make effective use of resources and minimize environmental impact;
  - (3) Promoting the effective use and recycling of key raw materials (lead, sulfuric acid and caustic soda) in order to conserve resources and protect the environment;
  - (4) Developing products with fewer environmental contaminants in order to minimize environmental impact; and
  - (5) Contribute to the environment business, to maintain a good corporate image.
- 4. We further improve our activities relating to biological diversity and hazardous material management by strengthening cooperation with Furukawa Electric Group.
- 5. We make everyone, including in-house employees and our subcontractors, know our business management policy to raise their awareness of protecting the environment through training. Also, we communicate our policy to our subcontractors and request their cooperation.
- 6. This policy is also disclosed to the general public whenever requested.

President and CEO

Shinichi Ono

Community involvement and development

man rights

r practices

Environment

Consumer issues



#### Trends of CO<sub>2</sub> emissions

We increased  $CO_2$  emissions by approximately 5.3% in fiscal 2016, which was on par with the levels in fiscal 2010.

Specific CO<sub>2</sub> emissions per unit of production of lead-acid storage batteries increased by approximately 6.8% compared to fiscal 2010. \*The above figures are based on a power to CO<sub>2</sub> conversion factor of 0.378 (kg-CO<sub>2</sub>/kWh), to enable comparison between fiscal years.

#### [ Per unit of production of lead-acid storage batteries ]



Wastewater

Wastewater levels at all sites were maintained within figures agreed with the relevant local authorities.

#### [Wastewater]



#### Improving transport efficiency

We were designated as a specified shipper (30 million ton-km) in accordance with the revised Energy Conservation Act of April 2006 and have continued to work on improving transport efficiency since then.

Although we increased CO<sub>2</sub> emissions by approximately 8% in fiscal 2016, compared to fiscal 2010, specific emissions increased by approximately 28% per unit (compared to fiscal 2010). We are nonetheless determined to keep on increasing transport efficiency in the future.

#### [ CO<sub>2</sub> emissions from transporting products ]



#### Waste

We recycled 97.6% of all waste in fiscal 2016. We are committed to recycling and will continue to reduce the volume of waste we generate in the future.

[ Total waste and percentage recycled ]



# ENVIRONMENT

## Targets and results

1 115	cal 2016, we carried out act		:Not achieved
	Policy	Targets (FY2016)	Assessment
	Saving resources	Reduction of lead waste rate over 3% from fiscal 2013	Ľ
	and recycling	Recycling (including heat recovery) at least 95% of total waste	Ŷ
	Prevention of	3% reduction of electric power consumption rate from fiscal 2013	<b>±</b>
	global warming	3% reduction of CO <sub>2</sub> emissions per unit of production from fiscal 2013	Ľ
	Eco-design activity	Commercialization of the products which support environmental load reduction : more than 7 cases per year	Ŷ

## Emissions and transfers of substances subject to PRTR Act

The following figures were taken in fiscal 2016 in accordance with the PRTR Act (Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof). We will continue to work on reducing emissions in the future.

Facility	Chemical	Total emissions (kg/year)	Total transferred (kg/year)	Facility	Chemical	Total emissions (kg/year)	Total transferred (kg/year)
	Antimony and compounds	0.0	22.8		Antimony and compounds	1.2	0.0
	Cadmium	0.9	21,371.1	ma	Ferric chloride	0.0	0.0
No.	Ferric chloride	0.0	0.0	ich	Toluene	2,084.6	0.0
aki	Cobalt and compounds	1.0	711.9	Pla	Lead compounds	71.9	213.6
Pla	Lead compounds	12.9	5,181.8	ant	Arsenic and inorganic compounds	0.3	0.0
라	Nickel	3.9	2,461.4		Methylnaphthalene	7.2	0.0
	Nickel compounds	10.5	6,482.8	* Emis	sionsSubstances emitted int	o the air or pu	blic waters
	Arsenic and inorganic compounds	0.0	1.5	Trar	sferred…Subcontracted waste t	reatment	

## Managing chemicals contained in our products

Our company's environment promotion department and materials department have been visiting major raw material manufacturers to hold discussions and information exchange on process confirmation procedures and hazardous substances contained in products.

We are cooperating in the confirmation and auditing activities performed by our customers concerning the status of control of hazardous substances in products. We are committed to effectively managing hazardous chemicals contained in all of our products.

We also manage chemicals contained in our products and provide information in accordance with legislation such as the revised Waste Electrical and Electronic Equipment (WEEE) Recast Directive and the Restriction of Hazardous Substances (RoHS) Directive, particularly in Europe.

Article 8, Paragraph 2 of the revised WEEE Recast Directive (2002/96/EC) requires companies to remove and separately dispose of any materials that could potentially have a negative impact on the environment from collected electrical or electronic equipment, before proceeding with any further treatment.

As batteries are included in the list of relevant materials, as specified in Annex VI, this means that the disposal of batteries once they have been removed is subject to the Battery Directive.

The revised RoHS Directive (2011/65/EU) meanwhile clearly states that the Battery Directive takes precedence. The following extract is from Paragraph (14) of the preamble.

(14) This Directive should apply without prejudice to Union legislation on safety and health requirements and specific Union waste management legislation, in particular Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and Regulation (EC) No 850/2004.

Batteries are also exempted from the RoHS Directive under Paragraph (29) of the preamble to the new Battery Directive (2006/66/EC) issued on September 26, 2006, as stated below.

(29) Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment does not apply to batteries and accumulators used in electrical and electronic equipment.

With this in mind, we make every effort to provide information on the basis that batteries are not subject to the RoHS Directive.

The Battery Association of Japan (BAJ) has published a paper setting out a similar position on its website.

http://www.baj.or.jp/recycle/recycle09.html

#### Community involvement and development

Environment

Consumer issues

# School education support activities

Believing that it is our mission as a storage battery manufacturer to develop human resources who can in the future effectively utilize energy work environments, and also be conscious of global and work environments, we have established the education program and provide ongoing support for

## Environment classes at elementary schools in Iwaki and Nikko cities

As part of the on-site environment classes for elementary school students, we have conducted lessons about energy since 2012, and have continuously held seminars including science classes since 2015. In fiscal 2016, we gave lessons to total 290 students including those of 3 elementary schools in lwaki, Fukushima, as well as those in the 4th to 6th grades of one elementary school in Nikko, Tochigi. In the energy class, we explained to the students how storage batteries are conveniently used in daily life



Lesson in science class

the education of students and children who represent the next generation.

We plan to respond to such needs in the regional society and schools in the future while proactively undertaking more school-education support activities to give even more students and young people a place to learn.

with the theme of "ways we will be able to use renewable energy in the future." In addition, the students experienced system of power generation and the need to store energy through the small wind power generation kits. As the result, the students deepened their understanding about importance and possibilities of storage batteries.

In the science classes held with the theme of "manufacturing and environment," the students actually assembled magnesium-air batteries using milk cartons that are available in home, and understood how power is generated. In addition, we added an experiment to utilize characteristics of magnesium-air batteries, so that the students can be more interested in the batteries.

In August 2016, we also gave the above science lesson at the Kansai International Airport Science Class held by Kansai Airport Co., Ltd. Total 90 participants including elementary school students in the 3rd to 6th grades and their parents enjoyed having questions and finding answers about the batteries they assembled. We believe that the science class can make small contribution to making Japan a technological superpower by providing a place to arouse interest in science and manufacturing, and to think about environmental preservation.

### Participation as lecturers in the Iwaki Shijuku for Junior and senior high school students

On July 30, 2016, employees from our Technology and Development Department participated as lecturers in the Iwaki Global Academy, the 2nd "Iwaki Shijuku". In front of the students, they talked about their turning point of their life, how they came to choose the current profession, their failures and how they utilized such experience of failures in their current works, giving the

students hearty support about what to expect in the future and to dispel any worries that student have. Among the topics of the lecture, what the students liked most was the story about the time when the employees participated in the World Scout Jamboree. Through this story, we believe that we could let them understand that global message is very important.

#### Implementation of an internship program for students from technical colleges or universities

Our UB Business Administrative Department implements 2 types of internship programs: long term and short term.

In the short-term internship program, students from technical colleges or universities assist employees in the actual workplace for 2 weeks. During this period, they can feel the jobs and atmosphere in the workplace by themselves and have an opportunity to think about "what it is like to be a business person."

In the long-term internship program that only university students can participate in, they focus on a single task-oriented research in the actual workplace for a longer period, usually 4 weeks. Through this program, they learn how difficult it is to achieve any result in a predetermined period, difference between students and business people, importance of communication, and principle of safety first, so that they can utilize the lessons they learned in their future research life or job hunting activity.

Our Environment Department provides an internship program for university students, as well as on-site environment classes for elementary school students.

During the internship program for university students, we provided lessons

about work-environment measurements and occupational safety and health. The students experienced work-environment measurements actually conducted at our plan, and the three controls for labor hygiene (specifically, work management, work-environment management and health management), so that they can have an opportunity to have the clear vision for the future.



Experiment for work-environment measurements

# GOVERNANCE

We will strictly comply with laws and corporate ethics and continue to take up the challenge of achieving future growth



# System that governance functions

## **Corporate Governance**

#### System of Corporate Governance

In June 2012, we introduced the executive officer system to improve the speed and efficiency of management. We separated the management oversight functions from the business execution functions, positioned the Board of Directors as the institution to make management decisions and supervise the execution of duties, separating these functions from the business execution functions. The Company operates a system under which management decisions are made with sufficient deliberation at meetings of the Board of Directors, which are held regularly once a month and attended by twelve directors including two outside directors and four audit and

supervisory board members including two outside auditors. It also operates a system under which an extraordinary meeting of the Board of Directors can be convened whenever necessary to deal with any issues. To enhance the audit function, we have in place a system under which we appoint audit assistants to support the auditing duties of audit and supervisory board members. We hold management meetings and business liaison meetings attended by directors, executive officers and full-time auditors to improve the speed and efficiency of execution of duties. In addition, we submit "Corporate Governance Report" to the Tokyo Stock Exchange.



#### Internal Control

We established Internal Control Basic Rules for the purpose of pursuing efficiency and effectiveness in the business operation of the Furukawa Battery Group, compliance with relevant laws and ordinances, ensuring the reliability of financial reporting, seeking to preserve assets, and helping

#### Basic Policy on the Elimination of Antisocial Forces

Furukawa Electric Co., Ltd. has set forth the Furukawa Electric Group CSR Code of Conduct as a code of conduct for its Group companies. This code clearly specifies that Group companies should adopt a resolute approach to antisocial forces.

maintain and enhance corporate value.

We also established institutions such as the Corporate Risk Management Department, the Risk Management Committee and the Compliance Committee for the same purpose, and are working to put internal controls in place.

Furukawa Battery's Board of Directors determined that Furukawa Battery shall adopt a resolute approach to any antisocial forces that threaten the safety and order of society, and its Compliance Rules stipulate it as compliance conduct guidelines.

Environment

Fair operating practices

basic procurement policy, to ensure that both sides develop together in a

capability

and

fair and healthy environment and fulfill their social responsibilities.

considerations, and by following the appropriate procedures.

(5) We sincerely work to meet the requirements of our suppliers and

At the same time, we strictly manage and keep confidentially any

confidential business information that we requested and received

development

provide them with information required for the deal.

environmental

# Fair procurement

### Promoting CSR procurement in cooperation with suppliers

We form strong partnerships with our suppliers and procure raw materials, parts, equipment and other supplies in accordance with the following

#### Basic policy on CSR procurement

- (1) We comply with laws and regulations, and public morals.
- (2) We place importance on mutual understanding and a trusting relationships based on good partnerships with all suppliers.
- (3) We always deal with all suppliers equally and fairly.
- (4) When selecting suppliers or products to be procured, we do so by evaluating the quality of the material, price, reliability of management,

#### Procurement guidelines

We aim to help create a genuinely fulfilled, sustainable society through our procurement activities.

# Social

- We engage in procurement activities based on respect for human rights, working conditions, health and safety.

technological

from the supplier.

- **responsibility** We promote environmentally friendly procurement.
  - We implement social contribution initiatives aimed at living in harmony with society.

#### Fair procurement

- We select suppliers fairly, in accordance with reasonable criteria based on free competition, including the quality of the goods supplied, price, delivery date, corporate stability, technical development capabilities, manufacturing and supply capabilities, and environmental initiatives.
- We give suppliers the opportunity to compete on a level playing field, no matter where in the world they are based.

#### Green procurement



### Legal compliance / ethics

- We make sure that our procurement activities comply with the spirit of the law and social norms.
- We will never disclose confidential information obtained from suppliers during the course of our procurement activities. Similarly, we will never infringe on intellectual property or other third-party rights.
- We do not engage in reciprocal trading, aimed at selling our own products and services, as part of our procurement activities.
- •We do not accept hospitality, gifts, money or other tokens provided by suppliers with the aim of securing an unfair advantage.

Acknowledging our responsibility to contribute to the creation of a recycling society, we actively promote green procurement, which entails procuring raw materials and components that have a small burden on the environment. In addition to components and semi-finished goods such as modules, the scope of our green procurement policy also strictly prohibits the use of CFSs and substitute CFSs such as that are contained in

### Audit of suppliers

Our Quality Assurance Department, Technology Department and Material Procurement Department jointly conduct audits of suppliers that supply raw materials and components to us on a regular basis. In these audits, we inspect not only product quality, but also suppliers' occupational safety and health, and plant environment. By inspecting their actual products or work sites, we can exchange opinions with suppliers and point out the specific points to be improved. Through these activities, we share ideas and activities for quality, occupational safety and health, and plant environment.

Through the above audit activities, we aim to build a relationship based on trust with our suppliers and to establish a continuous business relationship with them.

some adhesive tapes and adhesives, not just with respect to the content of the components themselves, but also to indirect materials and the manufacturing process.

Also, aiming for thorough procurement control, we submit a green procurement inspection sheet created to our specifications to all suppliers upon receiving delivery of components, etc.



With our supplier

# GOVERNANCE

## Complying with the Furukawa Electric Group CSR Code of Conduct

One of the Furukawa Electric Group's Management Principles is to "live up to the expectation and trust invested in us by society, with fairness and integrity." To put that into practice, our Group Credo states that each and every one of our employees and executives must "maintain high ethical standards, and value honesty and integrity above all."

To enable us to carry out corporate activities in accordance with those ideals, we have set out and comply with the Furukawa Electric Group CSR Code of Conduct, as a set of basic guidelines telling employees and executives how they should behave from the standpoint of

## Establishing a whistle-blowing contact system

In an effort to prevent compliance violations, we have established a system that enables employees and executives to report violations, or suspected violations, within Furukawa Battery or any Group company directly to the Compliance Committee.

We offer three separate points of contact; (1) an internal whistle-blowing hotline, (2) anonymous contact with a full-time Audit & Supervisory Board

corporate social responsibility (CSR).

We conduct follow-up activities on a regular basis, by asking all employees to review their performance based on the "Furukawa Electric Group CSR Code of Conduct" each year, and then giving them the opportunity to discuss the results with their head of department. We are committed to working as a team here at the Furukawa Battery Group, so that we can create open workplaces based on a constant awareness of compliance, and ensure that each and every one of our employees is living up to the serious expectations of our stakeholders.

Member, or (3) an external whistle-blowing hotline enabling employees to report violations anonymously (Furukawa Electric Group Hotline).

Information from all three sources is then collected by the Corporate Risk Management Dept., enabling us to respond to incidents as soon as they are reported, whilst also taking sufficient care to protect the whistleblower.



### Information security system

Furukawa Battery Group has set the "basic information security policy" and plays the important role in social responsibility by implementing proper information management and utilization in accordance with the policy.

In addition, we have established an information security management system and formulated information security risk management plan, so that we can actively implement information security measures in line with social changes.

#### Countermeasure against cyberattack

In order to ensure security of information assets connected within the intranet, Furukawa Battery Group monitors the network 24 hours a day and 365 days a year. We implement the system to detect any event at an early stage and eliminate the risk quickly, so that we can respond to evolving cyberattack such as malware. In addition, we give employees trainings for targeted email attacks, in order to increase their awareness for suspicious emails and to enlighten them about information security.



# Activities for enhancement in workplace environment

## Company-wide health and safety activities

Reflecting top management's strong determination that safety shall be prioritized above all, we have conducted company-wide health and safety activities, and each organization sets its target before starting its own health and safety activities. Because of the organizational change in fiscal 2016, the Safety Promotion Office was established to implement the measures specifically designed for the safety activities. Each employee in the workplace reads the safety slogan aloud together and chant for zero disaster every day, in order that he or she can always keep safety in his or her mind and behave in accordance with rules.

#### FY2017 company-wide health and safety activities

#### 1. Basic policy

Build a culture that puts safety above all and create safe, comfortable and pleasant workplaces for mind and body

#### 2. Slogan

Health and safety all come first, management resolves to attain zero accidents, and zero sicknesses

#### 3. Key targets

- (1) Safety
  - A. Accidents resulting in lost workdays and those without lost workdays: Zero
  - B. Near-miss reports: More than one/month, person C. Greetings, pointing and calling out procedures: 100% implementation
  - D. 5-grade safety level for a distance between a man and equipment, and a man and car: 3 or higher
  - E. Traffic accident during commutation or business trip: Zero
- (2) Environment and hygiene
  - A. First work control zone: Improved to 100% B. Preventing excessive work: Shorter overall working hours
  - C. Facilitation of preventative measures against heat strokes

#### 4. Main measures and policies

- (1) Reduced mishap risk through essential safety (2) Training of safety workers through communication
- (3) Improve the working environment and maintaining control
- (4) Make all employees know the health and safety standards, and autonomously control based on the management system
- (5) Maintain and promote the health of the hearts and bodies of all employees

#### 5. Implementation and follow-up

- (1) Each department plans and implements health and safety policies based on the company-wide policy on health and safety activities.
- (2) We setup a follow-up meeting in a monthly Health and Safety Committee to follow up on the status of implementation.
- (3) We implement a management review of the health and safety activities by an audit conducted by an internal audit, and labor and management safety patrols.

#### Main measures and policies

#### Example of Training of safety workers through communication



Permission for an employee to operate a forklift is not granted until he or she passes in-company written examination and skill training course



Greetings, pointing and calling out procedures



KYT leader training course

\*KYT…Risk prediction training

# GOVERNANCE

# Initiative to develop human resources

## Basic philosophy to develop human resources (training goals)

Our Administration Department is putting much energy into training global human resources with an eye to human resource issues indicated in the long-term management vision.

In fiscal 2016, we implemented educational training for young employees in

### [Training conducted in fiscal 2016]

New employee training	OJT trainer training
New employee follow-up training	Second-year training
Overseas young employee training	Newly appointed manager training
Career management traini	ng for mid-level employees
Director candidate training	Correspondence course (personal development support)

overseas and career management training for mid-level employees.

In fiscal 2017, maintaining the big target of "training global human resources," we will introduce specific measures to attain the target such as introduction of E-learning and will make efforts to "make the effect of the training visible."

At the new employee training in fiscal 2016

#### Continuity for future

As stated in the long-term management vision, we will continue to train and foster our human resources by positioning it as Company's most important investment.

#### Education Office's conduct guidelines

We established the Education Office's conduct guidelines based on Company's guiding principle: "Drawing on many years of expertise in battery technology, the Furukawa Battery will contribute to the realization of a rich and sustainable society through continuous technological innovation." Specifically, our conduct guidelines for education is "we are challengers." We provide our employees with the support they need to improve their individual skills, through training courses for instance We have put in place an educational framework that enables every employee to contribute to the Company's growth with a strong desire to take on new challenges and a broad look. We improve our training courses every year, to enable employees to acquire the skills they need based on vocational qualifications and recommendations, and continue to raise awareness and motivation with regard to goals and targets.

## Employment policy and recruitment activities

We make every effort to provide long-term stable employment by creating work environments and mechanism to ensure the employees feel motivated and can do their jobs with confidence. To cope with the employment-related problems due to aging and dwindling birthrates in Japan, we offer a variety of working styles every year depending on current conditions, ranging from graduate and mid-career recruitment to disability employment, reemployment of retired workers, assignment to other Group companies and temporary employment.

#### Recruitment of new graduates – the leaders of the next generation

As a member of the Furukawa Electric Group, we participate in the Furukawa Electric Group Forum. We also visit individual universities to give presentations on the Company and make a concerted effort to secure human resources. We recruit individuals the next generation based on their personal qualities, regardless of nationality, and

place a particular emphasis on interviews. In fiscal 2016, we recruited 30 graduates. In addition, as part of social contribution, Yokohama Head Office and Iwaki Plant accepted interns.

#### Mid-career recruitment with an emphasis on ability

In the increasingly globalized world, we need human resources with advanced experience and expertise across a wide range of profession. We

have recruited human resources with abundant work experience and/or a great deal of expertise. In fiscal 2016, we hired 31 mid-career employees.

[Employment figures]	Employees	917	Graduate recruits [FY2016]	30
	Average age	40.33	Mid-career recruits [FY2016]	31
	Average length of service	14.69 years	(As of	the end of March 2017)

# Opinions from second-forth year employees

I received the new employee training for one month after I joined the Company. In the training, we had a group work. We, trainees, exchanged opinions for preparation and gave a presentation on the last day of the training. Through this training, I was able to discover joy and a sense of accomplishment brought by collaboration with others to create something, and learned how communication is important. I will utilize what I gained in the training in my daily works without forgetting it.

1st Technology Group, Industrial Equipment Technology Department

Keiko Komatsu (Joined Company in 2016)





In the second-year training, I learned the methods and rules to produce results in business.

In the [Logical Thinking] training, we learned the process to share necessary information among the team and reach a single and common conclusion. I understood that quality of team work affects the result of the work.

Utilizing what I learnt in this training, I would like to grow to a human who can produce results.

1st Industrial Machinery Sales Department

Masayuki Iwata (Joined Company in 2015)

I received the third-year training in Thailand, in order to understand that I am a member of the global society and to acquire knowledge allowing me to perform my duties with wider vision. In Thailand, I felt other country's culture and situation in my bones through communication with employees of Siam Furukawa and city tour, understanding the difference from Japan. I think that I should get on my duties from multidirectional viewpoints, without taking for granted what I do every day in workplace.

> Design Group, Power Supply Manufacturing Department **Shota Tsukamoto** (Joined Company in 2014)

## Realization of diversified working methods

We respect our employees' individual lifestyle choices and provide a range of support systems to enable them to strike a work-life balance, between their job and private life. Although our various support systems have been set out

in accordance with the laws, we are continuing to explore ways of improving our systems in fiscal 2017, so that we can provide employees with an even more pleasant working environment and reduce their working hours.

Summ	Summary of support systems				
Туре		Main support system	Description		
Ducks shire of	1	Consultation system	We provide the consultation system for pregnant employees, so that they can take childbirth leave and return to work in ease. (Before child birth, and immediately before and after return to work)		
mother's body	2	Pregnancy doctor visit time off	When any pregnant employee applies for this system to visit the doctor for physical examination and health supervision, the employee can take a pregnancy doctor visit leave that is separate to the conventional paid vacation leave.		
	3	Morning sickness time off	When any pregnant employee has a difficult time being employed because of morning sickness, the employee can take morning-sickness leave up to 10 days (without pay).		
	4	Distribution of leaflets about the periods before and after birth, and childcare	Leaflets summarizing related systems and procedures are distributed to all employees.		
	5	Childcare leave	Employees can take the childcare leave at longest until the end of the fiscal year when the child turns 2 years old or one month later after that. (Basically, the leave is granted until the child reaches one year and one month.)		
Childcare	6	Child-rearing short-working hours system	If any pregnant employee can work 6 hours a day, the employee can use this short-working hours system at longest until her child reaches the 4th grade of elementary school.		
	7	Child nursing care leave	If the child has not yet reached the 4th grade of elementary school, the employee can take the 5-days leave. In addition, if the employee has 2 or more children, the employee can take at longest 10-days leave (without pay).		
	8	Male employees' short-term childcare leave	Separate to special leave for weddings and funerals, the employee can take this leave at the longest for 5 days on a day-to-day basis until the child turns one year and one month.		
	9	Distribution of leaflets about balancing work and family care	Leaflets summarizing related systems and procedures are distributed to all employees.		
	10	Family care leave of absence	Employees can take the leave at longest for one calendar year up to 3 times per employee. The leave can be divided.		
Family care	11	Family care leave	If the employee has one family member requiring care, he or she can take 5-days leave per year. If two or more family members require care, the employee can take 10-days leave. The leave can be counted by the day, half day or hour (without pay).		
	12	Short-working hours system for family care	If the employee can work 6 hours a day, he or she can use this short-working hours system at longest for one calendar year.		
	13	Paid vacation taken by the hour	Employees can take this leave not only by the day or half day, but also by one hour until the leave reaches 4 hours in the day.		
Paid vacation	14	Two-continuous days off	We recommend annual holidays for two days in a row, so that employees can renew their bodies and spirits.		
	15	Accrued leave	The remaining number of days of annual holidays can be saved for 10 years, up to 50 days. Employees can use these holidays for caring or nursing of family members, treatment for personal illness, personal development and volunteer activity.		
	16	Introduction of No Overtime Day	The second Wednesday of every month is designated as the day that every employee must leave the office without overtime work.		
Others	17	Reemployment system for those who left the Company for family reasons	Reemployment registration system for former employees who left the Company for family reasons such as marriage, childbirth, child care, caring or nursing of family members or treatment for personal illness		
	18	Continuing employment contract system	We implement the system that employees who have reached retirement age (60 years old) may sign a continued employment contract with the Company and work until they turn 65 years old.		

## "Kurumin" mark, a symbol of a company supporting childcare

On October 25, 2016, we earned the Kurumin mark, a certification provided by the Minister of Health, Labor and Welfare in recognition of company efforts to support child rearing by employees.

Over recent two years, 100% of our employees who took childcare leaves returned to the work, and a male employee took a childcare leave for the first time in the company history. In addition, we implemented various measures allowing employees to rear their children in relief, such as extension of child-rearing short-working hours system, introduction of a No Overtime Day

in every month, and recommendation to take longer annual holidays, so that they can display their abilities to the full, while rearing children.



We will continue to provide better work environment where all employees can balance work and childrearing, and work in relief to display their abilities to the full.

### Voices of employees who used childcare leave system

This was the second time for me to use the childbirth and childcare leave systems. I have been able to continue to work in relief until now and spent the time effectively and pleasantly, because I was able to balance home and work better than the time of my first birth by using the child-rearing short-working hours system. In addition, people in the Company understood my situation and consistently supported me. I will

get energy from my children and try to produce the best result in the limited time.

1st Industrial Machinery Sales Department Yuka Kato



At first, my plan was to take the childcare leave for one year, but my child could not enter a nursery school due to limited availability and the Company permitted me to extend my leave until my child is accepted by any nursery school.

I was very anxious about rearing my first child, but now I enjoy busy days spent with my son, thanks to the extended leave that allows me to concentrate on childcare for one year and several months.

When I return to work, I will continue the work of product development, with an aim to create

batteries that many people including my son can use conveniently in their daily life.

Research Department, Engineering Development Division Ayano Koide



Environment

Fair operating

Organizational governance Consumer

# Acquisition of "Tomonin Mark"



We acquired the "Tomonin Mark," a symbol mark showing that the company agrees with the purpose to establish the work environment where employees can balance their work and family care. In January 2017, we prepared the "Leaflet for Work and Family Care Balance" summarizing the related systems and procedures and distributed them to all employees. We will continue the efforts to allow employees to balance their work and family care by providing the work environment where they can work in relief.

### For success of Furukawa Battery products in overseas markets!

Having joined the Company 22 years ago, I currently work in the Construction Department.

From October 2016 through January 2017, I, on behalf of Fuji Electric Co., Ltd. delivered DC power supply systems and storage batteries for UPS to the Smart Community demonstration facilities implemented by NEDO (New Energy and Industrial Technology Development Organization) at Suryacipta City of Industry in Indonesia.

On the site, I had hard time to explain the outline of the work and assembly procedures to local staff who cannot speak Japanese nor English. I had to try various methods one after another to communicate with them.

However, they tried to understand what I was saying, and as the work progressed, our communication gradually became smooth, and I was able to complete the work as scheduled without any problem.



Construction Group, Construction Department, Construction Management Division

Yoji Kuramoto



## Mutual trust between labor and management

With the exception of managerial staff, retired workers (with continuing employment contracts), and employees on fixed-term contracts, employees at the Furukawa Battery belong to a labor union. Communication between labor and management is crucial to facilitate business management, expand the Company's operations and improve working conditions. This is the reason that we organize central management briefings twice a year, to provide explanation on subjects such as our business plans and results. We also organized divisional labor-management meetings at the divisional level, to go through monthly profit and loss figures, as well as monthly Labor-Management Subcommittee meeting to resolve issues. Labor-management health and safety patrols meanwhile take place at each of our site twice a year. We continue to provide opportunities for dialog, so that we can keep on improving mutual trust between labor and management at every level.



Health and safety patrol

# Maintaining relations with the Company after retirement

We run the Furukawa Battery OB Society for former employees who have retired. The society holds an annual meeting in October every year at three areas of Yokohama, Nikko and Iwaki. At the meeting, we confirm the situation of OB and celebrate their longevity, and look through the society's financial reports, etc. The annual meeting is followed by a reception, during which members can get to know one another better and get the latest information on the Company.



Furukawa Battery OB Society Annual Meeting 2016 (Iwaki)

# Financial Highlights (as of March or end of March of each indicated fiscal year)

In the fiscal year ended March 2017, Furukawa Battery Group not only engaged in continuous activities for enhancement of product quality and technology innovation, but also aggressively expanded its operations, as represented by share acquisition of a storage battery manufacturer in Vietnam.



#### Profit attributable to owners of parent and ROE



#### Net interest-bearing debt and Net D/E Ratio

■ Net interest-bearing debt --- Net D/E Ratio





Thanks to continued sales increases of replacement batteries in Japan and of lead-acid storage batteries for automobiles sold by a Thai subsidiary, net sales, operating income and current net income respectively increased compared to the previous term; we achieved increases in both sales and income.





#### Free cash flow (FCF)



Dividend per share and Payout ratio



## Overseas Sales

Overseas sales were 18,429 million yen. Our overseas sales are generated by lead-acid batteries for automobiles and motorcycles

which are sold in non-Japanese regions. The batteries are produced by our overseas subsidiary, Siam Furukawa and us, Furukawa Battery.

	FY2013	FY2014	FY2015	FY2016	FY2017
Sales	44,380	49,556	53,903	54,106	55,320
Sales by region					
Japan	32,739	34,305	35,286	36,201	36,891
Asia	10,414	13,679	16,050	15,589	16,609
Others	1,226	1,572	2,567	2,315	1,820
Ratio of overseas sales	26.2%	30.8%	34.5%	33.1%	33.3 %

#### Overseas Sales / Ratio of Overseas Sales



# Profile of Furukawa Battery

Helping to create a better society through technology and products people can trust

## Corporate Profile

Corporate Name The Furukawa Battery Co., Ltd.

- Head Office Hoshikawa SF Building, 2-4-1 Hoshikawa, Hodogaya-Ku, Yokohama City, Kanagawa, 240-0006 Japan
- Established September 1, 1950 (Spun off from Furukawa Electric Co., Ltd.)
- President Shinichi Ono

Paid-in Capital 1.64 billion JPY (As of March 31, 2017)

Number of Employees 2,393 [Consolidated], 917 [Non-Consolidated] (As of March 31, 2017)

## **Group Companies**

#### Automobile battery sales

Furukawa Battery Marketing Co., Ltd. Niigata Furukawa Battery Co., Ltd.

#### Major Products

#### Lead-Acid Storage Batteries:

For automobiles, motorcycles, electric powered vehicles, trains, aircrafts, ships, emergency lighting, telephone switchboards, information devices, uninterruptible power supplies (UPS), security systems, new energy power, power storage systems

#### **Alkaline Storage Batteries:**

For measurement instruments, space satellites, fire alarms, emergency broadcast systems, shutters, aircrafts, railway cars, etc.

#### **Power Supply Systems:**

DC power supply systems, AC uninterruptible power supply systems (UPS), inverters, etc.

#### **Other Items:**

Converters, battery chargers, storage battery diagnosis apparatus, battery testers, MgBOX, electrical work, telecommunications work, and others

#### Others

Daiichi Giken Kogyo Co., Ltd. HD Holdings Co., Ltd. FB Finance Co., Ltd. FB Package Co., Ltd. ABRI Co., Ltd.

## History

1914	Furukawa Electric Co., Ltd. established its battery factory in Amagasaki City, Hyogo Prefecture, and started production of lead-acid batteries.
1937	Relocated the battery plant to Hodogaya-Ku, Yokohama City for business expansion.
1950	Spun off from Furukawa Electric Co., Ltd. and founded as The Furukawa Battery Co., Ltd.
1970	Completed an automobile battery plant in Imaichi City (now Nikko City), Tochigi Prefecture.
1978	Completed an automobile battery plant in Iwaki City, Fukushima Prefecture.
1986	Constructed FB Plant (Nikko).
1995	Obtained ISO 9001 certification.
1999	Obtained ISO 14001 certification (Iwaki & Imaichi Plants).
2001	Completed company-wide certification under ISO 9001 (2000).
2002	Additionally acquired shares of Siam Furukawa Co., Ltd. to make it a subsidiary.
2003	Successfully developed the world's first lithium-ion battery for space application, which was installed in the "Hayabusa" asteroid explorer.
2010	Provided the "Akatsuki" Venus climate orbiter with a lithium-ion battery.
	Received a certificate of commendation from the Ministry of Education, Culture, Sports, Science and Technology, for the development of batteries installed on board 'Hayabusa,' the compact planetary exploration craft that has achieved the world's first

bringing samples back to earth from an asteroid.

2011	Obtained the highest environmental rating from the Development Bank of Japan, the first time that rating has been awarded in the lead-acid storage battery industry.
	Launched long-life valve regulated lead-acid battery for cycle use (FCP series).
2012	Launched battery for vehicles with idle-stop system (ECHNO IS) and battery for hybrid vehicles (ECHNO HV).
2013	Adopted and launched capacitor-hybrid lead-acid storage battery, UltraBattery, for cycle-service control-valve-regulated lead-acid storage battery (UB-1000) and battery for hybrid vehicles with idle-stop systems (ECHNO IS series).
	Established PT. FURUKAWA INDOMOBIL BATTERY MANUFACTURING in Indonesia.
	At Iwaki Plant, carry out the facilities reinforcement of the automotive lead-acid storage battery factory for Fukushima revival and competitiveness reinforcement, and July, 2014 operation start.
2014	World's first magnesium-air battery which uses paper container has been developed with TOPPAN PRINTING CO. LTD and released in

Automobile battery

production and sales

MANUFACTURING (Indonesia)

SIAM FURUKAWA CO., LTD. (Thailand)

PT. FURUKAWA INDOMOBIL BATTERY

December, MgBOX has been launched.

"Hayabusa 2," asteroid explorer was launched with our lithium-ion battery.

PT. FURUKAWA INDOMOBIL BATTERY 2015 February MANUFACTURING completed its of lead-acid storage battery for automobiles of in Republic of Indonesia.

	Integrated five dealerships such as the lead-acid storage battery for automobiles designed for domestic markets sales, and began as the Furukawa Battery Marketing Co., Ltd.
August	First shipped products manufactured by PT.FURUKAWA INDOMOBIL BATTERY MANUFACTURING.
November	Developers of the magnesium-air battery "MgBOX" for emergencies received the METI Minister's Prize in the Sixth Monodzukuri Nippon Grand Award, in the product technology and development category.
December	With TOPPAN PRINTING CO., LTD., developed, announced, and began sales in February 2016 of the magnesium-air battery "MgBOX slim" for emergencies.
2016 September	Acquired 10.5% of issued share of Dry Cell and Storage Battery Joint Stock Company, a storage battery manufacturer in Vietnam.
October	Developed "battery units for vending machines" enabling machine operation without power supply, jointly with JR East Water Business Co., Ltd.
	Awarded the "Kurumin" mark, certification of child-rearing support companies.
2017 January	Signed an agreement with I-WIND (Inter Far East Wind International Co., Ltd.) for supply of UltraBattery, Furukawa Battery's cutting-edge technology, to a wind power generation project in Thailand.



### Business continuity plan (BCP)

#### BCP basic policy

#### 1. Perspective of human safety

We put disaster countermeasures in place to ensure the safety of employees, other workers of our Company, their families, visitors, and other people.

#### 2. Perspective of business continuity

We ensure our Company is resilient to damage to ensure we can recover from a disaster quickly to continue the business and meet the needs of our customers.

#### 3. Other perspectives

We place an emphasis on the local residents and the local self-governing bodies as part of restoration efforts.

#### Data backup

To prevent loss of data due to disaster or disc damage, we continuously backup our data. As a contingency against wide-spread disaster or system damage, we save backup data at a remote location.





Hoshikawa SF Building, 2-4-1 Hoshikawa, Hodogaya-Ku, Yokohama City, Kanagawa Prefecture 240-0006, JAPAN Phone: +81-45-336-5034 Fax: +81-45-333-3511 http://www.furukawadenchi.co.jp/english/