

## China Hongqiao Group Limited 中國宏橋集團有限公司

(Incorporated under the laws of the Cayman Islands with limited liability) Stock Code : 1378

# **Environmental, Social** and Governance Report

2018

CONTENTS	
ABOUT THIS REPORT REPORTING SCOPE REPORTING STANDARD INFORMATION AND FEEDBACK	<b>1</b> 1 1
CHAIRMAN'S STATEMENT	2
ABOUT CHINA HONGQIAO	<b>4</b>
CORPORATE PROFILE	4
MANAGEMENT PHILOSOPHY	5
ESG RESPONSIBILITY MANAGEMENT	<b>5</b>
STAKEHOLDER ENGAGEMENT	5
MATERIALITY ASSESSMENT	8
PROMOTING GREEN PRODUCTION	<b>10</b>
PREVENTION AND CONTROL OF POLLUTION	10
ENERGY CONSERVATION AND CONSUMPTION REDUCTION	15
GREEN OFFICE	18
ADHERING TO PEOPLE-ORIENTED GOVERNANCE	<b>19</b>
RECRUITING TALENTS	19
TALENT CULTIVATION	21
HEALTH AND SAFETY	24
CARING FOR EMPLOYEES	27
PURSUING EXCELLENCE IN QUALITY SUPPLY CHAIN MANAGEMENT QUALITY MANAGEMENT AND INNOVATIVE RESEARCH	<b>30</b> 30
AND DEVELOPMENT	31
PROMOTION OF INDUSTRY DEVELOPMENT	32
SALES AND SERVICES	33
PRIVACY PROTECTION	34
ANTI-CORRUPTION PRACTICE	35
CARING FOR SOCIAL WELL-BEING	<b>36</b>
PUBLIC CHARITY	36
OVERSEAS CONTRIBUTIONS	37
APPENDIX I: SUMMARY OF KEY PERFORMANCE INDICATORS	42
APPENDIX II: ESG REPORTING GUIDE CONTENT INDEX	44



## **ABOUT THIS REPORT**

This report is the third Environmental, Social and Governance Report ("**ESG Report**" or the "**Report**") of China Hongqiao Group Limited (the "**Company**") and its subsidiaries (collectively referred to as "**China Hongqiao**", the "**Group**" or "**We**"), which provides detailed information on the various works of China Hongqiao in full implementation of the concept of sustainable development and fulfillment of corporate social responsibility in 2018. For details of corporate governance, please refer to the Corporate Governance Report set out in the 2018 Annual Report of the Group.

## **REPORTING SCOPE**

The Report focuses on the environmental and social performance of the core business segments of China Hongqiao in the People's Republic of China (the "**PRC**") during the period from 1 January 2018 to 31 December 2018 (the "**Year**"). The key performance indicators disclosed in this Report covers the Company and all its subsidiaries (data set out in Appendix I), in which all key performance indicators related to the environmental area are in compliance with the principle of "comply or explain".

## **REPORTING STANDARD**

The Report has been prepared in accordance with the Environmental, Social and Governance Reporting Guide under Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the **"Stock Exchange**"). Unless otherwise specified, currency units in this Report are denominated in Renminbi.

## **INFORMATION AND FEEDBACK**

For detailed information about the work of the Group in environmental protection, social responsibility and corporate governance please refer to our official website (www.hongqiaochina.com). The Group values your opinions on the Report. If you have any comments or suggestions, please feel free to email us via zghqesg@hongqiaochina.com.

## **CHAIRMAN'S STATEMENT**

As one of the world's largest aluminum producers, China Hongqiao adheres to the development objective of "Taking from Society and Giving Back to Society", stays consistent with the direction of the country's reform, pays attention to the needs of the community, plays a leading role and leads the industry in the direction of sustainable development. With a strict business ethic and prudent attitude, the Group, while ensuring the stable development of its business, integrates sustainable development into its business strategy and is committed to energy conservation, emission reduction and consumption reduction to constantly create value for stakeholders and the entire society. Through this ESG Report, China Hongqiao wishes to demonstrate its efforts and commitment to the environment and sustainable social development.



Zhang Bo, Chairman

During the Year, the Group adhered to ecological priority, and

further increased input in environmental protection with focusing on the special project of environmentally-friendly upgrading of electrolytic aluminum and alumina. In addition, the Group also actively contacted with research institutes, strengthened cooperation in production, education, research and application, and promoted the shift in growth drivers. The "Creation of Energy-Saving Standardization Demonstration for Electrolytic Aluminum Production" applied by the Group was listed by the Standardization Administration of China as a created project of the "Notice on the Implementation of National Energy Conservation Standardization Demonstration Project by 55 Units including China General Chamber of Commerce" (《關於中國商業聯合會等55家單位開展國家節能標準化示範創建項目的通知》), enabling the Group to become the only selected aluminum smelting company in the PRC.

As a responsible corporate citizen, the Group has always spared no effort in promoting green development, improved energy efficiency through adopting new production technologies and emerging technologies and optimizing the production procedure, and strived to improve environmental performance from managing carbon emissions to reducing waste, etc. While promoting its own business, the Group actively promoted the common development of the industry and worked with upstream and downstream enterprises to create a new pattern of higher-quality, efficient and sustainable development of the aluminum industry.

China Hongqiao also constantly paid attention to the sustainable development of third world countries. During the Year, the Group once again cooperated with partners to further deepen cooperation with the government of Guinea, Africa and signed three conventions including new mining area development, alumina plant construction and railway construction, which gained a unanimous vote from the National Assembly of Guinea. The successful operation of the projects effectively stabilized the supply channels of the Group's raw materials, opened a new channel for the development of Guinea, and deepened the economic cooperation between the PRC and Guinea to realize lasting prosperity of bilateral development.

Since its inception, China Hongqiao has been actively devoted to the public welfare undertaking and practiced corporate social responsibility with practical actions. During the Year, the Group donated RMB2 million and RMB500,000 to Beijing Rainbow Foundation and China Social Welfare Foundation, respectively, to help them to provide left-behind children with homes that can meet their needs for life and education and to promote various social benefits. In addition, the Group actively held different types of volunteer activities and encouraged all employees to jointly participate and build communities of mutual aid and prosperity.

As for employees' rights, the Group regards employee rights and personal development as the core and mission of corporate development. We provide employees with pre-employment and on-the-job training, and also provide specialists in various fields with a career ladder to realize their aspirations and to obtain recognition. Besides, we are also committed to maintaining a healthy and comfortable working environment and establishing a sound remuneration and welfare package system. Various measures are taken to enable employees to grow together with the Group.

Looking ahead, sustainable development will continue to play an important role in the Group's operational strategy and corporate culture. By continuously adhering to the "innovative, harmonious, green, open and sharing development" philosophy, the Group will undertake corporate social responsibility, actively respond to relevant national policies, and support social, economic and environmental progress towards green development.

**Zhang Bo** Chairman of the Board

17 July 2019

## **ABOUT CHINA HONGQIAO**

## **CORPORATE PROFILE**

China Hongqiao Group Limited was incorporated in the Cayman Islands, with shares of which listed on the Main Board of the Stock Exchange in 2011, principally engaged in the manufacturing and sales of molten aluminum alloy, aluminum alloy ingots, aluminum busbars, aluminum alloy processing products and alumina products as a global leading aluminum product manufacturer. After years of hard work, the Group has basically formed the operation pattern of the whole upstream and downstream industrial chain of bauxite mining, alumina, aluminum products, deep processing and sales of aluminum products, and achieved remarkable economies of scale.

For the year ended 31 December 2018, China Hongqiao has built nine production bases in Zouping, Weiqiao, Bincheng district, Huimin, Yangxin, Beihai, Zhanhua, Boxing and Indonesia, with an annual operation capacity of 6.46 million tonnes of aluminum products. In 2018, the Group's total output of aluminum products reached approximately 6.37 million tonnes, and the output of aluminum alloy processing products reached approximately 500,000 tonnes.

Downstream customers of China Hongqiao's aluminum alloy include CITIC Dicastal, the world's largest aluminum wheel manufacturer; Bohai Piston, the largest piston manufacturer in Asia; Shandong Innovation Group, the largest aluminum alloy manufacturer in the PRC; BAIC Group and other renowned domestic and overseas enterprises. Intensive processed aluminum products are well recognized by more than 100 customers such as Ball Corporation, CPMC, ORG Packaging, Shengxing Group, Pacific Can, United Can, Baosteel Packaging. In recent years, the intensive processing sector has achieved rapid development. Major products such as cans and lids materials, aluminum foil billets and CTP/PS substrate materials have been successfully developed and put on the market in large quantities. Product quality has reached the advanced level in the PRC.

## MANAGEMENT PHILOSOPHY

China Hongqiao upholds its core value of "serving the country and benefiting the people", and takes it as its driving force and mission to facilitate economic development, provide job opportunities, increase income for farmers and build a harmonious society, in a bid to contribute to the local economic and social development. Meanwhile, China Hongqiao responds positively to the PRC's strategic planning of "The Belt and Road Initiative", by promoting international energy production cooperation in the Well Harvest Winning Alumina Project which has commenced production in Indonesia and the joint venture bauxite project in Guinea. This not only demonstrates the influence of the PRC's enterprises in the global market, but also boosts the local economy development and the construction of infrastructure, which are highly praised by the local government and residents.

With an aim to establish a "resource-saving and environmentally friendly" enterprise, China Hongqiao has made every effort to achieve sustainable development by setting up an environmentally-friendly, green and efficient production model. In recent years, China Hongqiao has achieved remarkable results in environmental protection by promoting the transformation of environmental protection facilities, eliminating obsolete production capacity, developing and introducing advanced production equipment, and has commenced standardized, scientific, informatized and professional management in its operation.

## ESG RESPONSIBILITY MANAGEMENT

## STAKEHOLDER ENGAGEMENT

The Group deeply understands the close relationship between stakeholders and the business development of the Group. The preparation of the Report, with the participation of different stakeholders, has prompted us to be more informed about the Group's current management on the environmental and social levels. The information we collected is both a summary of relevant environmental and social work performed by the Group during the Year and the basis of formulating our strategies for short-term and long-term sustainable development.

In order to understand the stakeholders' opinions and demands, the Group communicated with them through various channels so as to review and enhance our performance in environmental, social and corporate governance and meet their reasonable demands.

Stakeholders	Expectations and Requirements	Communication and Response Channels
Government and regulatory authorities	<ul> <li>Operation in compliance with laws and regulations</li> <li>Promotion of the local economic development</li> <li>Creation of job opportunities</li> <li>Tax payment on time and in full</li> <li>Safe production</li> </ul>	<ul> <li>Regular submission of information</li> <li>Regular communication with regulatory authorities</li> <li>Special report</li> <li>Inspection and supervision</li> </ul>
Shareholders	<ul> <li>Operation in compliance with laws and regulations</li> <li>Increase of company value</li> <li>Transparency of information and effectiveness of communication</li> </ul>	<ul> <li>General meeting</li> <li>Announcement by the Company</li> <li>E-mail, telephone and website of the Company</li> <li>Special report</li> <li>On-site inspection</li> </ul>
Partners	<ul> <li>Integrity management</li> <li>Fair competition</li> <li>Fulfillment of contracts in compliance with laws</li> <li>Mutual benefit and win-win cooperation</li> </ul>	<ul> <li>Review and assessment meeting</li> <li>Business communication</li> <li>Communication and seminars</li> <li>Discussion of cooperation</li> </ul>
Customers	<ul> <li>Outstanding products and services</li> <li>Health and safety</li> <li>Fulfillment of contracts in compliance with laws</li> <li>Integrity management</li> </ul>	<ul> <li>Customer service center and hotline</li> <li>Customer opinion survey</li> <li>Customer communication meeting</li> <li>Customer visit</li> </ul>
Environment	<ul> <li>Fulfillment of emission standards</li> <li>Energy conservation and emission reduction</li> <li>Efficient use of water resources</li> <li>Protection of ecology</li> </ul>	<ul> <li>Communication with local environmental protection department</li> <li>Communication with local residents</li> <li>Reporting</li> <li>Investigation, study and inspection</li> </ul>

7

Stakeholders	Expectations and Requirements	Communication and Response Channels
Industry	<ul> <li>Setting up industry standards</li> <li>Promotion of industry development</li> <li>Visits and inspections with industry peers</li> </ul>	<ul> <li>Communication with local labor departments</li> <li>Participation in industry forums</li> </ul>
Employees	<ul> <li>Safeguard of rights and interests</li> <li>Occupational health and safety</li> <li>Remuneration and benefits</li> <li>Career development</li> <li>Employee caring</li> </ul>	<ul> <li>Internal publication and intranet of the Company</li> <li>Employee representatives meeting</li> <li>Democratic forums</li> <li>Employees mailbox</li> <li>Training and workshop</li> </ul>
Communities and the public	<ul> <li>Improvement of community environment</li> <li>Participation in charitable activities</li> <li>Openness and transparency of information</li> </ul>	<ul> <li>Communication with the community</li> <li>Website of the Company</li> <li>Announcement by the Company</li> </ul>

## **MATERIALITY ASSESSMENT**

In preparing the Report, China Hongqiao has entrusted an independent third-party consultant to conduct a materiality assessment in a fair and equal way. The materiality assessment is implemented in three phases:

- To identify 30 potentially material issues that may affect the Group's business or stakeholders at environmental, social and governance levels based on relevant national and local standards and policies, industrial features and the Group's own development;
- To invite internal and external stakeholders (including employees, management, directors, customers, suppliers and the community) to complete online questionnaires so as to collect and examine their awareness of each of the issues; and
- (iii) To analyze 314 eligible questionnaires and form a two-dimensional matrix of "Importance to the Group's Business" and "Importance to Stakeholders" to determine the priorities for potentially material issues.

Below is the materiality matrix analyzed based on the results of the questionnaires.



9

	ironment and ources		ployment and Labor ctices	Оре	erating Practices	Cor	nmunity Investment
1.	Compliance with	11.	Compliance with labor	20.	Compliance with	28.	Public charity
	environmental		laws and regulations		laws and regulations	29.	Impacts on
	protection laws and	12.	Remuneration and		related to provision of		communities
	regulations		benefits		products and services	30.	Social communication
2.	Exhaust management	13.	Working hours and	21.	Supplier management		
З.	Wastewater		holiday entitlement	22.	Product quality		
	management	14.	Diversity and equal	23.	Customer service		
4.	Greenhouse gas		opportunities of staff	24.	Protection of		
	emissions	15.	Employee		intellectual property		
5.	Waste management		engagement and	25.	Research and		
6.	Recycling		communication		development		
7.	Energy use	16.	Talent recruitment	26.	Information security		
8.	Use of water		and retainment		and privacy protection		
	resources	17.	Occupational health	27.	Anti-corruption		
9.	Green office		and safety				
10.	Use of raw and	18.	Employee training and				
	packaging materials		development				
		19.	Prevention of child				

By analyzing the results of questionnaires, the Group identified 8 material topics which are disclosed in details in the Report.

labor and forced labor

Aspects	Ma	terial Topics	Corresponding Sections
Environment and resources	1.	Compliance with environmental protection laws and regulations	Prevention and Control of Pollution
	2. 3.	Exhaust management Waste water management	Prevention and Control of Pollution Prevention and Control of Pollution
Employment and labor practices	11.	Compliance with labor laws and regulations	Recruiting Talents, Health and Safety
	12. 17.	Remuneration and benefits Occupational health and safety	Recruiting Talents, Caring for Employees Health and Safety
Operating practices	20.	Compliance with laws and regulations related to provision of products and services	Quality Management, Sales and Service, Privacy Protection
	22.	Product quality	Quality Management

## **PROMOTING GREEN PRODUCTION**

The year 2018 is the first year of implementation of the spirit of the 19th CPC National Congress, in which ecological environmental protection and ecological construction carries significant strategic importance. By always adhering to the path of green development, as the abiding theme in electrolytic aluminum industry, China Hongqiao actively increased investment in environmental protection to build a green electrolytic aluminum enterprise with low consumption, low emission and high input-output ratio, and strived to become a benchmarking enterprise of green environmental protection in the aluminum industry. During the Year, in strict compliance with environmental laws and regulations of the state and places of operation, China Hongqiao continued to promote green production in the four aspects of prevention and control of pollution, energy conservation and consumption reduction, resource recycling and reusing, and green office. During the Year, Shandong provincial local standards DB-37 Assessment Specification for Green Plants for Aluminum Smelting (《鋁 冶煉綠色工廠評價規範》), which was jointly drafted and formulated by Shandong Hongqiao New Material Co., Ltd. (山東宏 橋新型材料有限公司) (a wholly-owned subsidiary of China Hongqiao) and Shandong Institute of Standardization, has been reviewed and publicized by the expert group and will be issued by Shandong Bureau of Quality and Technology Supervision in the foreseeable future.

## PREVENTION AND CONTROL OF POLLUTION

The Environmental Protection Department of the Group is responsible for comprehensively supervising the environmental protection of the Group, including formulating and monitoring the implementation of our internal environmental protection policies and guidelines, establishing environmental risk contingency plans, organizing training and emergency drills on environmental incidents, regularly inspecting the Group's production facilities and pollutants discharge facilities, conducting environmental performance appraisal for each production unit and keeping abreast of the latest development of the environment-related regulations and standards in the PRC. The Group also strictly monitored governance and emissions of "three wastes", to integrate environmental protection equipment into its normal production management system. It implements 24-hour real-time supervision of the pollutant discharge standards and operational parameters of environmental protection facilities to ensure the long-term stable operation and fulfillment of standards.

## **Exhaust Gas Treatment**

The Group's emissions of exhaust gas mainly come from power plant boilers and aluminum production. The Group continued to strictly comply with the relevant laws and regulations such as the Law of the PRC on the Prevention and Control of Atmospheric Pollution. The exhaust gas is emitted in compliance with relevant standards after purification in the factory. Real-time monitoring data is uploaded by our automatic monitoring equipment installed on the exhaust emission outlet to the monitoring platform of the government's environmental protection department so that the exhaust gas emission level of the Group can be monitored remotely and continuously.

Sources of Exhaust Gas	Major Components	Processing Facilities and Processes
Boilers at power plant	Nitrogen oxides	Denitration system: Low-nitrogen combustion + SCR (Selective Catalytic Reduction) process
	Sulfur dioxide	Desulfurization system: Limestone-gypsum wet desulfurization and magnesia wet desulfurization
	Particulates	Dust removal system: High-efficiency electrostatic precipitator + wet dust collector or tubular dust collector
Alumina production	Nitrogen oxides	Denitration system: Low-nitrogen combustion + SNCR (Selective Non-Catalytic Reduction) + SCR process
	Sulfur dioxide	Desulfurization system: Tannin extract wet desulfurization
	Particulates	Dust removal system: Electric-bag composite dust removal or electrostatic precipitation + metal filter bag
Electrolytic	Sulfur dioxide	Desulfurization system: Limestone-gypsum wet desulfurization
aluminum production	Particulates	Dry flue gas purification system: Alumina adsorption + bag dust
production	Fluoride	capture
Aluminum deepEmissions from aluminumEmit after disprocessingmelting furnace, holdingproductionfurnace and ingot heatingfurnace		Emit after disposal by bag filter
	Tiny amount of non- methane hydrocarbon gas produced from hot rolling and annealing process	Collected by gas-collecting hood and emit after disposal by spray and fogging and de-steaming process

In order to further reduce exhaust emissions and improve the quality of the surrounding ecological environment, the Group continues to invest in environmentally-friendly equipment. During the Year, in addition to completing the superlow emission's reform of all power generation units, the Group has also actively upgraded and reformed other devices to improve the performance of devices and reduce exhaust emission.

## **Cases of Upgrading and Transformation of Emission Reduction Equipment**

## Upgrading of Heating Process Device for Smelting Vessel

During the casting process, the smelting vessel was dried and heated up by burning lumbers and other materials, which generated a large amount of flue gas and particulates. During the Year, the Group introduced an intelligent heater with automatic control functions to ensure evenly heating inside the vessel, which significantly reduced the flue gas generated during operation and the external emission of pollutants.

## Air Purification Improvement of Bridge Crane

During production of electrolytic aluminum, changing the anode of the electrolytic cell will produce pollutants including flue gas, particulates and alumina powder. We installed various devices including fans, dust collection pipes and dust collection box on the multi-functional bridge crane to effectively reduce the air pollutants generated during the replacement of anode. The equipment also has a silent design to reduce the impact on workers and surrounding environment.





## Wastewater Discharge

The wastewater discharged by the Group mainly consists of production wastewater and domestic sewage. The Group continued to strictly comply with the relevant laws and regulations such as the Wastewater Pollution Prevention and Control Law of the PRC. The wastewater is processed in the factory for simple pretreatment to meet the requirements of the Water Quality Standards for Discharge to Municipal Sewers (GB/T 31962-2015) and be discharged into the local municipal sewage treatment plant through municipal pipelines. The Environmental Protection Department of the Group takes samples from outfalls and performs quality sampling test every month to ensure that the wastewater meets the discharge standards. In addition, the outfalls are equipped with online monitoring system and connected with the local environmental protection departments, and the relevant data is uploaded on a real-time basis.

In order to improve water efficiency and prevent water pollution, the Group has continued to implement various measures as follows:

- Wastewater produced from alumina production is fully recycled and reused, attaining zero discharge of wastewater;
- Cooling water used in the casting process is recycled for use in the electrolytic aluminum production process;
- Water discharged from the cooling water tower of the power plant is recycled in priority;
- Water used for spraying and cleaning of vehicles is recycled and used to a certain extent before being applied for coal yard spraying.
- The fluoride in the fluoride-containing wastewater generated from desulfurization can be reduced by adsorption of desiccant, thus enabling the wastewater to be reused after treatment; and
- Building a rainwater precipitation and decontamination pools in the aluminum plant to reduce the content of pollutants such as alumina powder and fluoride salts in rainwater, thus to avoid the discharge of polluted rainwater and to allow part of the treated rainwater to be reused for production.

## Waste Disposal

The final solid waste generated by the Group can be classified into non-hazardous waste and hazardous waste. The Group strictly implements the regulations such as the Law of the PRC on Prevention and Control of Environmental Pollution by Solid Waste, the Standard for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes (GB 18599-2001), the Control Standard of Contaminated Hazardous Waste Storage (GB 18597-2001) and so on, to ensure that solid wastes are properly disposed of.

Types of Wastes	Major Components	Disposal Methods
Non-hazardous waste	Domestic garbage	Cleared and handled by the Municipal Sanitation Department
	Waste accessories	Sold to qualified recycling companies
	Ash from power plant, slag, desulfurization gypsum	Sold to building materials companies for recycling
	Scrap and dust of carbon anode blocks	Sold to external parties for comprehensive utilization
	Construction waste	Entrusting qualified entities for handling
Hazardous waste	Waste lubricants, waste denitration catalyst	Sold to qualified companies for recycling useful substances
	Coal tar	Entrusting qualified entities for handling
	Waste carbon residue (slag)	Recycling the useful substances through the flotation process and selling them to qualified recycling companies
	Overhauling residue of electrolysis cells	Entrusting qualified entities for handling
	Red mud	Stored in special red mud storage facilities, recycling and reusing some of the useful substances, or making them into bricks and selling them to construction companies

The Group proactively reduces the amount of waste by recycling and reusing waste. For example, the Group uses dual chamber furnace process to melt the waste generated during the production process, including the scrap with impurities, recycled materials, wastes collected from the market and/or clean materials, so as to reduce the amount of industrial waste. Moreover, the Group adopts flotation process and comprehensively utilizes the waste carbon residue (slag) generated from the aluminum smelting process. The products obtained from flotation are electrolyte powder and carbon powder. Part of the electrolyte powder is reused as raw material for electrolytic aluminum production, and part of it is for selling. Carbon powder, as the raw material, is sold to external parties. The comprehensive utilization of aluminum electrolytic waste carbon residue serves as a good illustration of resource recycling of waste carbon residue to avoid environmental pollution, and at the same time, creates greater economic benefits for the Group.

Besides, red mud, a kind of strong alkaline hazardous solid waste, is produced during the alumina production process. If the red mud is disposed of improperly, the groundwater, soil and atmosphere will be heavily polluted. In order to prevent the deterioration of the ecological environment caused by red mud and the damage to human health, the Group strictly follows the Regulations on the Prevention and Control of Environmental Pollution Caused by Tailings to conduct prevention and supervision of red mud. The red mud produced is discharged into the red mud storage facility which is under strict leakage prevention and safety management after it is dewatered and filtered, we also set up a control zone around the alumina production facility and the red mud storage facility and a number of groundwater observation wells to monitor whether the red mud has polluted the surrounding environment. As the red mud contains a large number of mineral elements that can be recycled, we recycle highly magnetic materials by centrifugation and magnetic separation, and make the remaining materials into bricks for building materials.

## **ENERGY CONSERVATION AND CONSUMPTION REDUCTION**

With scientific and effective lean management alongside persevering exploration and innovation, in recent years, the Group has made remarkable achievements in saving energy and reducing consumption and has diminished production costs effectively, setting a new model of energy conservation in the industry, among which, the primary aluminum production line designed by Shandong Weiqiao Alumina & Power Co., Ltd. (山東魏橋鋁電有限公司) ("Weiqiao Aluminum & Power") and equipped with advanced and reliable technologies has effectively increased output and energy utilization rate and achieved the environmental goals for energy conservation and emission reduction. During the Year, the electrolytic aluminum production energy-saving mode of Weiqiao Aluminum & Power was listed as a standardization demonstration project by the Standardization Administration of the PRC, thus enabling Weiqiao Aluminum & Power to become the only selected aluminum smelting enterprise in the PRC. In the future, Weiqiao Aluminum & Power will participate in the revision of energy conservation standards and actively promote advanced technologies and products.

#### **Resource Management**

The Group continues to comply with laws and regulations and industrial standards regarding energy management, energy measurement and energy consumption quotas, including the Aluminum Industry Standardization Requirements, the Integrated Energy Consumption Limit for Electrolysis Aluminum (DB 37/743-2007) and the Norm of Energy Consumption Units for Products of Aluminum Metallurgical Enterprise (GB 21346-2013). The enterprise management department of the Group is responsible for overseeing the energy conservation and emission reduction work during the production process so as to reduce waste. The enterprise management department organizes training and promotional activities regularly and formulates a monthly quota plan for each production unit and conducts monthly performance appraisal on the fulfillment of indicators of each production unit. In addition, the Group strictly monitors the use of packaging materials of aluminum deep-processing products to eliminate wasteful practices.



## **Energy-saving Transformation**

The Group regards energy-saving transformation as an important part in its production management system. In addition to requiring all production units to attach great importance to energy conservation, it also urges all employees to actively participate in energy-saving technological transformation so as to enhance the utilization efficiency of energy and resources. During the Year, the Group completed a number of energy conservation and technology transformation projects, including the energy optimization of aluminum electrolysis cell, the frequency conversion transformation of purifying draught fans in electrolytic aluminum plant and the introduction of automatic material filling truck, so as to continuously improve environmental protection technologies and maintain ultra-low emissions.

## **Cases of Energy-Saving Equipment Upgrading**

# Frequency Conversion Transformation of PurifyingIntroduction of Automatic Material Filling TruckDraught Fans in Electrolytic Aluminum Plant

The original purifying draught fans of the electrolytic aluminum plant maintained a fixed speed during operation. After the frequency conversion transformation was completed, the control system of the purifying draught fans can track the load change in real time and intelligently control the motor speed, ensuring reasonable control over energy consumption while achieving air purification and reducing unnecessary consumption. When filling raw materials into electrolysis cells, the original filling was carried out by using self-developed equipment and bridge cranes, the process of which involved a large number of human resource and electricity consumption. The newly introduced automatic material filling trucks are equipped with filling monitor system and automatic filling device, and can be operated by only one driver, which saves electricity consumption in addition to reducing human resource required.



The transformed purifying draught fans



The newly introduced automatic material filling truck

## **GREEN OFFICE**

The Group adheres to low carbon and environmental protection philosophy in office, and encourages all employees to set their own examples and start from small changes, such as saving water and electricity, and reducing the consumption of paper and other office supplies in daily office activities. We also encourage employees to reduce the use of motor vehicles and choose a greener and healthier way of travel.

Water Consumption Management	Electricity Consumption Management	Office Supplies Management
<ul> <li>Posting water-conservation slogans in toilets</li> <li>Purchasing and using water saving appliances</li> <li>Strengthening daily maintenance of plumbing and water appliances to avoid the "running", "spraying", "dripping" and "leakage" of water</li> <li>Reusing of steam condensation</li> <li>Changing supply pumps of domestic water and purified water and improving the utilization efficiency of devices</li> </ul>	<ul> <li>various kinds of electrical appliances after work to reduce standby energy consumption</li> <li>Installing LED and other lightings with high efficiency</li> </ul>	<ul> <li>Posting paper-saving slogans in office</li> <li>Making full use of paperless office platform, intranet, communication software and other channels to process documents online</li> <li>Reducing font size and margins when printing, and promoting double sided printing and paper recycling</li> <li>Sharing printer to reduce idle equipment</li> <li>Collecting and reusing paper bags and file boxes</li> <li>Repairing and using old and waste materials, so as to improve utilization efficiency of materials</li> </ul>

## ADHERING TO PEOPLE-ORIENTED GOVERNANCE

Excellent talents are the cornerstone to achieve the strategic goals and the driving force for sustainable development of the Group. By adhering to the employment principle of "selecting appropriate talents, respecting value and people-oriented", the Group not only strives to maintain employees' physical and mental health, but also attracts talents through scientific talent training methods, an effective incentive mechanism, a platform of fair competition and vast opportunities of career development, enabling all employees to fully demonstrate their personal value within the Group, match their personal planning with the business development goals of the enterprise and achieve common growth of the employees and the enterprise.

## **RECRUITING TALENTS**

In order to facilitate the continuously growing business scale, we recruit talents from different cultures, different backgrounds and different regions to join our team to increase the diversity of employees. The Group strictly complies with the relevant laws and regulations, in the recruitment, dismissal, promotion and remuneration of employees such as the Labor Law of the PRC, the Labor Contract Law of the PRC and the Labor Contract Regulations of Shandong Province, to protect the legitimate rights and interests of employees in a legal manner.

## **Employment Policy**

The Group carries out its recruitment mainly through a variety of channels such as social recruitment, online recruitment, campus recruitment, telephone contact, employee recommendation and talent communication fairs. Eligible applicants will be assessed in the form of medical examinations, paper examinations and interviews, during the process of which, the Group upholds the principle of equal opportunity, and considers and employs talents in a fair, open and just manner and promises that it will never discriminate on grounds of gender, age, race, religion, marital status, and so on. In order to eliminate the employment of child labor and forced labor, the Group not only checks the identity and age of candidates carefully during recruitment in accordance with the relevant laws and regulations such as the Provisions on the Prohibition of Using Child Labor, but also strictly prohibits any employee to work overtime on a compulsory basis or to arrange work beyond their job duties. Exit interviews will be conducted by the Group for departing employees to find out their reasons for leaving and make improvement according to their reasonable suggestions.

The Group has established a sound remuneration management system and provides competitive remuneration packages to attract talents. Under the premise of ensuring fairness and incentives for the assessment of wages, each department regularly assesses and adjusts the wage level according to the salary standard of the post, the workload, work performance, years of service, skill levels of the employees and other factors. In addition to the basic wage, the employees' remuneration also includes performance-based bonus and various types of subsidies such as skill subsidies, position subsidies, and high temperature allowances. In order to evaluate employee performance fairly and objectively, the Group has formulated and implemented the Employees after conducting regular employee performance assessments to enhance the quality of work, work efficiency and motivation of the employees. We make contributions to "five social insurances" for our employees and also provide them with additional benefits such as free accommodation, medical care benefits. The Group has also established a reasonable dismissal system and formulated legal conditions of dismissal in accordance with the relevant laws and regulations.

## **Rights Protection**

The Group is committed to safeguarding the rights of its employees and eliminating any exploitation of rights. In order to ensure that employees have enough resting time, the Group stipulates that the working hours of employees should not exceed the statutory standards and relevant provisions shall be set out in labor contract. Eight-hour working system and three shifts with four groups are adopted for employees in each production unit. Employees are required to work overtime only under specific circumstances. Overtime payment is made to employees in accordance with the applicable standards stipulated in relevant laws. All employees enjoy statutory holidays, home leave, marital leave, funeral leave and maternity leave.

The Group firmly opposes gender discrimination. Employees, regardless of gender, are treated equally and the distribution of work is implemented according to actual needs. The Group also protects the lawful rights and interests of female employees according to law and complies with the relevant laws and regulations to provide female employees with benefits during pregnancy, delivery and lactation, including arranging breastfeeding time for employees returning to work after delivery.

## TALENT CULTIVATION

"Strong enterprise with great talents" is one of the important strategic goals of the Group. The Group highly values personal development of our employees by not only creating the clear career development path for all kinds of talents, but also encouraging their continuous growth through performance appraisal, job selection and training, so as to provide backup force for the sustainable and stable development of the enterprise.

## **Performance Evaluation and Promotion**

Besides serving as the basis for employees' compensation adjustment, the Employees Performance Dynamic Management System is also an important basis for employee competition, promotion and change of position. Employees who have achieved outstanding results in performance appraisal will be given priority in the process of promotion.

In addition, the Job Selection System is adopted in each production unit and the Group has also set up a selection and employment mechanism that can better identify the outstanding talents from the peers. Following the principles of "fair, just, open, competitive and merit-based", outstanding employees will have the opportunity to participate in position competition. The most suitable candidates are selected level by level through a series of assessment, including branch factory assessment, written tests, interviews, practice exams, safety assessment and democratic evaluation. The job selection process is closely monitored by all the employees for reporting and complaining about any violation acts.



## **Employees' Training**

22

By adhering to the talent concept of "cultivating talents by demand", the Group has established a comprehensive and diversified staff training system for our employees to help them master the skills and knowledge for their work. We provide specific training programs which are guided by experienced staff for all new employees to help them master all necessary skills during the first three months of their internships. In addition, we also provide our employees with regular training in production safety, environmental management and energy resource management to cultivate their awareness of safe production and energy conservation. In terms of quality control, we regularly provide technical and theoretical learning and technical practice tests for our employees to improve their skills and ensure product quality.

During the Year, the Group continued to implement each of the annual training programs and commence job training, professional and technical personnel training, elementary management training and middle and senior management training.

Trainees	Training Goals	Training Methods and Contents
Management training for middle and senior management cadre	To improve management skills and overall quality of management cadres	Participating in training classes for middle and senior management cadre; reading educational materials; cadre warning education is performed through watching films and televisions for integrity advocacy, corruption punishment cases, warning videos and so on.
Branch factory employees	To meet eligibility criteria and able to operate independently	New employees: receiving educations about rules and regulations of the Company, safety awareness, environmental awareness, dedication, ethics, compliance with disciplines and laws and other aspects After determining the type of job or changing position: learning knowledge of the environment quality system, job responsibilities, fire safety and emergency knowledge, environmental protection
Workshop employees	To meet eligibility criteria and able to operate independently	knowledge and the related skills of the assigned position Trainings targeting at process, machine operation knowledge, equipment maintenance and care, chemical knowledge, emergency knowledge, fire safety and environmental awareness, job safety regulation and so on.
Logistics department employees	To improve the overall capability of employees	Personnel training, business skills and specialized trainings on the integrated management system
Electricians, welders, climbing workers, chemical managers, and so on	To ensure the normality and safety of electricity consumption for production and living of the Company and improve environmental quality	Political thoughts and professional ethics education, safety education, environmental education, emergency knowledge training, job safety regulation training, technical theory study and practice
Special types of work, internal auditors, firefighters, safety officers, and so on	To standardize operations and eliminate employees who are not competent for the work	Professional skills operation training, safety management training, environmental awareness and concept training



Anode casting technique training



Welder tool making technique training



Special training on technical condition control of electrolysis cell



Electrolysis cell maintenance technique training

In addition to providing internal trainings, during the Year, the Group continued the cooperation with Soochow University, Shandong University, Binzhou Vocational College, Northeastern University and Central South University, respectively, according to which, the Group may select its internal staff to attend relevant training programs organized by these institutions, which helps improve workforce quality and management capabilities. In the meantime, apart from the courses in those training programs, the Group may organize specialized training for relevant staff when requirements of designated products or recommendations for improvement are received. We have put the mechanism of training evaluation in practice to review the training outcomes and enhance the whole training system. The evaluation includes safety examination, professional examination and skill examination, etc.

## **HEALTH AND SAFETY**

The Group adheres to the safety production guideline of "comprehensive management with priority of safety and emphasis on prevention", and implements strict safety production management and employees' occupational health management to minimize personal injury and death as well as economic losses during production and operation.

## **Production Safety Management**

In accordance with laws and regulations such as the Work Safety Law of the PRC, the Special Equipment Safety Law of the PRC, the Interim Provision on the Identification and Treatment of Hidden Perils of Work Safety Accidents, the Provisions on Safety Training of Production and Operation Entities and the Regulations on Safety Production in Shandong Province, the Group has developed a comprehensive and detailed safety management system and accident emergency plan.

With the launching of safety month activities, the Group provides its employees with various safety trainings such as training on first-aid knowledge, usage of special equipment (such as lifting machinery) and emergency treatment to increase their safety awareness and strengthen their abilities to handle emergencies. We also conduct regularly assessments to the safety knowledge of the management of our subsidiaries to ensure that they have the required safety risk management and processing capabilities.



First aid training



Firefighting training

In order to enhance the safety production capability of employees, the Group continues to optimize its production systems and introduces automation technology to upgrade production facilities. During the Year, the Group introduced automatic busbar jacking frame, and conducted several transformation projects such as developing anode automatic altimeter to avoid high-altitude work, which not only reduced labor intensity but also improved the working environment and reduced safety risks.

## **Dust Removal System Upgrading and Modification**

Due to the flammable and explosive properties of coal dust, the Group improved the dust removal effect of the dust collector by modifying the explosion-proof dust collector system and model to reduce safety risks. The modified dust collector can effectively remove 99.8% of dust and maintain the dust emission concentration below 20mg/Nm<sup>3</sup>, which greatly reduces the chance of dust concentration exceeding the standard and thus ensures production safety.



Modified explosion-proof dust collector

## **Occupational Health Management**

The Group strictly abides by relevant laws and regulations including the Work Safety Law of the PRC, the Law of the PRC on the Prevention and Control of Occupational Diseases and the Provisions on the Supervision and Administration of Occupational Health at Work Sites, to implement the management work regarding employees' occupational health during production process, which include warning and notification of occupational disease hazards, occupational disease prevention education, maintenance of protective equipment and facilities, monitoring and evaluation of hazards, reporting of hazard incidents and emergency rescue, and so on.

The Group provides employees with complete and professional labor protective supplies such as helmets, safety goggles, earplugs, anti-high temperature protective shoes, insulated shoes and gloves, acid-resistant gloves, dust masks and gas masks and strictly supervises the use of protective supplies and the operation and protective functions of protective devices. In order to identify and control various sources of occupational hazards such as air pollutants, dust, noise and radiation, the Group has entrusted a qualified occupational health and technical service agency to test occupational hazards in each workshop regularly. For new recruits or employees exposed to occupational hazards, the Human Resource Department will arrange occupational health checks before and during employment and create health records to monitor the health conditions of employees regularly. Occupational health checks will also be provided for employees when they leave the Group.

## **CARING FOR EMPLOYEES**

The support and dedication of each employee is indispensable for the growth and development of the Group. In addition to providing an ideal working environment for employees, the Group also extends its care to employees' families and lives.

## Welfare System

The Group upholds the principle of "ensuring housing for employees, education for their children, medical services for the illness and pension insurance for the retired". We are continuously improving the employees' welfare system that integrates housing, education, health care and pension insurance mechanisms.

#### Housing

- Providing free dormitory with heating supply, air-conditioner, Wi-Fi and other facilities for single employees
- Providing married employees with a house, charged at cost, together with free heating supply, and electricity and water supply charged at cost

## Education

- Investing into the construction of primary and secondary schools at local communities and constructing normalized high-standard kindergartens to provide convenient education services for employees' children with low tuition fees
- Awarding employees' children with excellent results in the national college entrance examinations

## Medical

- Setting up non-profit
   outpatient hospitals in various
   industrial parks and residential
   areas to provide medical
   services to employees and
   their families
- Applying medical insurance for staff

#### Pension

- Granting condolences and gifts to retired employees
- Applying pension insurance for employees

#### Aiding Employees in Need

The Group has always adhered to the philosophy of "thinking from the employees' perspective, resolving their concerns", providing them with what they are in need and caring about their families and lives. The Group's labor union carries out regular surveys and visits to employees in difficulties, and takes the initiative to understand the living situation of employees in difficulties, their family relationships and financial burdens. Priority is given to employees who are suffering from illnesses, or whose families encounter misfortunes or difficulties in life. During the Year, the Group invested a total relief payment of RMB182,000 to provide assistance to 35 families in need, helping them step out of difficulties.



Visiting the sick employees



Providing financial assistance to the sick employees

#### **Cultural and Sports Activities**

In order to help employees achieve work-life balance, enrich their spare-time life and enhance their sense of belongings and cohesion for the Group, during the Year, the Group organized cultural and sports activities such as the square fitness cultural activity, sports week and sports gala, staff instrumental music competition, folk art competition, talent competition for employees' children, evening variety show, film show week, calligraphy, painting and photography exhibitions, New Year's party and other staff events. Meanwhile, the Group holds large-scale technical competitions in autumn and winter every year. In addition to demonstrating the technical level of the participants, the competitions also test the safety knowledge and safety operation skills of the employees, ensuring the quality and safety. Generous rewards are given to employees who have excellent performance in the competitions, and the Group will also arrange work experience sharing sessions among employees to promote learning and communications between employees, improve employees' business skills and foster their spirits of excelling at work.





The New Year's party



Calligraphy, painting and photography exhibitions



Employees' sports gala



Hiking activity



Technical competitions (production techniques)



Technical competitions (occupational health and safety

## PURSUING EXCELLENCE IN QUALITY

Molten aluminum alloy, the major product of China Hongqiao, is the main material for manufacturing aluminum products and other products including aluminum deep-processing products such as coils, can stocks, aluminum foils, etc. China Hongqiao possesses advanced manufacturing equipment, specialized production technology, strong R&D (research and development) capability as well as scientific and highly efficient management model. By virtue of pursuit and persistence of excellence in quality, China Hongqiao is able to continue providing customers with high quality, safe and stable products along with excellent service.

## SUPPLY CHAIN MANAGEMENT

The raw materials necessary for the production and operation of the Group mainly include raw coals, bauxites and anode carbon blocks, and the required supplies mainly include equipment, accessories, production ancillaries, labor insurance and office supplies. In order to maintain a healthy and orderly supply chain system, continuously optimize the supplier teams and reduce the environmental and social risks posed by substandard suppliers, the Group has been devoted to improving the procurement process and establishing and strengthening the development, supervision, assessment and management of suppliers. The Group has established long-term relationships with a number of suppliers and has endeavoured to ensure that they comply with the Group's commitment to quality and ethics and the Group's anti-bribery policy.

## **Procurement of Raw Materials and Supplies**

The Group appoints tender companies to procure the raw materials (other than bauxites) and supplies in accordance with the materials consumption plan submitted by each production unit. The procurement is in compliance with its internal procurement management system, which covers the procurement process, procurement discipline, quality requirements, contract execution and management, acceptance process upon arrival and punishment standards for non-conforming products, and so on. After supplier's operation qualifications, economic strength, equipment conditions and supply capacity are inspected and assessed by the tender company, the eligible suppliers are then selected to participate in the tender. The bidding process strictly follows the regulations such as the Bidding Law of the PRC and is conducted in an open, fair and equal manner to secure the interests of both parties. In addition to the principle of "comparing quality of same products, comparing price of same quality and comparing service of same price", the Group also adopts the principle of conducting procurement from nearby suppliers to reduce transportation costs and carbon emissions caused during transportation.

## **Procurement of Raw Coal**

The Group implements a bidding system for coal suppliers. To avoid over-purchase and waste, coal-using units report the monthly coal use plan on the basis of monthly usage amount, and then the Coal Supply Department determines the amount of coal required and target purchasing amount through tender on the basis of inventory. Apart from considering the price, the Group also evaluates factors such as the bidder's integrity, the environmental impact (including sulphur content), etc., to ensure the quality of the coal purchased.

## QUALITY MANAGEMENT AND INNOVATION RESEARCH AND DEVELOPMENT

The Group implements the "one-vote veto system" for quality control. Every process of the production line is checked carefully, forming a quality control network that all steps are closely connected and monitored by all staff members. "Two prohibitions", which include prohibition of passing defective products from the former procedures to the latter procedures and prohibition of storing and outputting disqualified products, are enforced in our production. While "three unacceptance", which comprise unacceptance of unconvinced reasons, unacceptance of unimproved measures and unacceptance of the irresponsibility of any personnel in charge, are put in place for quality incidents.

The Group has set up a well-equipped and highly functional quality control center and continuously upgrades its production technology and equipment through innovative R&D and encourages staff members to participate in minor reforms and activities related to tackling key problems of QC (Quality Control) thoroughly to ensure stability and enhancement of product quality.

## **Quality Control**

The Group has set up a quality control system that closely monitors the quality of raw materials, semi-finished products and finished products step by step. All production processes of raw materials from entering to leaving the factory are traceable, in which composition testing, random sampling, labeling, packing, transportation and storage all strictly comply with relevant standards and specifications. For raw materials, ancillary materials and non-conforming products which fail in initial and final testing procedures, the Group will conduct isolation, analysis and correction and provide opinions and suggestions for the incident according to the Control Procedures of Non-Conforming Products.

To guarantee the health and safety of its products, the Group strictly conforms to the requirements of national, industrial and international standards such as the National Food Safety Standard for Food Contact Materials and Use of Additives Standards for Products (GB9685-2016) and the National Food Safety Standard for Water-based Modified Epoxy Paint of the Inner Wall Cans (GB 11677-2012) to ensure that the toxic and harmful contents contained in the packing products for food and drugs meet the legal standards and make sure the production environment and processes fulfill the specific hygienic requirements. Can materials produced by the Group currently cover the width and thickness requirements of all domestic and foreign can factories and are capable to satisfy the specific requirements of customers. The performance in terms of indicators is widely recognized by clients. The Group has established stable partnerships with more than one hundred renowned enterprises at home and abroad, including Ball Corporation, CPMC, ORG Packaging, Shengxing Group, Pacific Can, United Can, Baosteel Packaging.

#### Promotion of SAP&MES Information Platform

In order to deal with the increasingly complex information management needs, and facilitate the transition of refinement, digitization and informatization management of the Group, we in corporation with IBM Company and Shanghai Baosight, through years of efforts, have built the System Applications and Products (SAP) & Manufacturing Execution System (MES) informatization platform. SAP&MES platform provides a comprehensive system that connects enterprise management, all production lines and on-site production equipment to help us plan and organize production and operation activities reasonably and efficiently, and achieve efficient control and management on quality. Meanwhile, by collecting and utilizing of production management data, we can more objectively analyze and discover problems in production technology, capacity planning, quality management, etc., providing a new source of power for the Company to improve the overall operational efficiency and quality management.

## Innovation and R&D

Innovation and R&D are the major driving forces for the Group to reduce energy consumption, optimize production technique and enhance product quality. The Group has always attached great importance to innovative platform construction and industry and academic collaboration. On the one hand, we actively invest resources into the R&D team. On the other hand, we continue to strengthen the partnership with scientific research institutions in the form of industry and academic collaboration. During the Year, the Group continued to exchange and cooperate with Soochow University, Central South University, Northeastern University and other universities. Besides, the Group encourages its staff to work on improvements of production facilities and techniques regarding safety, energy conservation, efficiency enhancement and environmental protection and to learn from and promote the technical transformation projects with promotional value. During the Year, the Group implemented a total of 431 minor reform projects, continuing the improvement of performance in environmental protection, employee safety safeguard and quality control.

## **PROMOTION OF INDUSTRY DEVELOPMENT**

The Group took part in formulating several national and industrial standards, such as the Unalloyed Aluminum Ingots for Remelting (GB/T 1196-2017) and the Safety Guidance for Use of Vacuum Ladles (DB37/T2800-2016), promoting the standardization in the PRC's aluminum industry and improving the quality control of aluminum products and production safety management. Besides, the Group and Shandong Innovation Group Co., Ltd (山東創新集團有限公司) jointly hosted the 2018 International Aluminum Industry Chain Development Summit Forum in Sanya, and participated in the 2018 China International Aluminum Processing Forum and other meetings to actively promote exchanges within the aluminum industry and foster the progression of the entire aluminum industry. During the Year, the Group was awarded "The Most Competitive Aluminum Group in 2017-2018" and "Star Enterprise with the Most Market Attention in 2017-2018" at 2018 China Aluminum Summit.

During the Year, the Group participated in Germany ALUMINIUM World Trade Fair, also known as the "Olympics of Aluminum Industry". In addition to being a sales platform, the fair also provides opportunities for the global aluminum enterprises to exchange know-how and exhibit the development of the aluminum industry, which will foster the development of the international aluminum industry.



The exhibition booth of China Honggiao in the Germany ALUMINIUM World Trade Fair

## SALES AND SERVICES

The Group maintains long-term relationships with multiple clients and adopts a business model of "production based on sales" and provides various products with different specifications in accordance with the requirements of downstream clients, which ensures its product supply and minimizes the stock inventory. The Group mainly promotes its sales and services through participating in customer seminars and exhibitions and publishing promotional videos and booklets. During the Year, the Group continued to strictly comply with relevant laws and regulations such as the Advertising Law of the PRC and the Trademark Law of the PRC, as well as its internal rules including the Working Rules of Sales Corporation and the Corporate Customer Credit Management System. All products and business information shall be carefully reviewed before being publicly disclosed to eradicate any acts of misleading or cheating clients with false information.

In order to have an understanding of customer's satisfaction with the Group's products, the Group has stipulated working regulations for sales company and required sales persons to actively contact customers and establish continuous and stable communication channel, so as to collect customer opinions and improve service quality. If we receive complaints from customers relating to our products, we will reply to customers as soon as possible after completing investigation and take appropriate improvement measures if necessary, to prevent the recurrence of similar incidents.

## **PRIVACY PROTECTION**

The Group gives priority to information security to protect both internal privacy and client information. Its information center provides training sessions regarding information safety, system application and security on a non-regular basis to improve employees' skills in system application and arouse their awareness on security. In order to regulate the use and management of computers and internet resources, according to internal regulations and rules such as the Administrative Rules for Security of Using Office Computers and Network, the Group regulates relevant data backup and protection, anti-virus system management, central computer room management and user password setting, and strictly prohibits unauthorized access to external devices and disclosure of confidential documents and ensures the normal operation of the equipment in computer room and proper storage of important data.

In addition to improving information security, the Group also ensures that the privacy interests of both the Group and its customers are protected by supervising the bidding and purchasing procedures strictly, carrying out education regarding secrecy, signing confidentiality agreements with employees in specific positions, and with customers and suppliers.
#### **ANTI-CORRUPTION PRACTICE**

The Group always adopts the attitude of "zero tolerance" towards unlawful acts such as bribery, extortion, fraud and money laundering. During the Year, the Group continued to abide by the relevant laws and regulations such as the Anti-Money Laundering Law of the PRC and the Criminal Law of the PRC and put the Anti-fraud Control Procedures, the Administrative Measures on Complaints and Reports and other internal rules and regulations in practice. The Group has set up the Economic Supervision Department as a permanent body to urge each department to carry out the anti-fraud work. All departments convene an anti-corruption meeting each month to summarize, review and study cases of non-compliance occurred in the past. The Chairman of the Board also holds regular anti-corruption meetings to mobilize and supervise the leaders of various departments to strengthen the building of a clean and honest organization. In addition, the Disciplinary Inspection Committee and the Economic Supervision Department of the Group jointly prepared an anti-corruption publication entitled Anti-Corruption In Organization (《勤廉陣地》), which recorded a number of typical cases of corruption and carried our in-depth information collection and analysis. Besides, the Economic Supervision Department also organized anti-corruption studies to enhance employees' awareness of probity.

For bidding and purchasing, the Group has adopted strict monitoring measures. In addition to ensuring fairness, openness and justness in the bidding process, the Group also requires personnel and management cadres related to bidding and procurement to sign an undertaking of integrity. The procurement department also signs an agreement on anti-corruption with the bidders to prevent the acts like accepting rebates or engaging in private transactions. During the Year, the Group has not been involved in any corruption proceedings.



Employees participating in anti-corruption training

Yearly anti-corruption publication published by the Group

China Hongqiao Group Limited 2018 Environmental, Social and Governance Report

## **CARING FOR SOCIAL WELL-BEING**

The successful development of China Hongqiao up to date is attributed to the full support and trust of the state and all parties from the society. China Hongqiao always keeps in mind the initial mission of "building a business for the country and benefiting the people". We accumulate our love by little acts of kindness and give back to society and people by actively participating in social welfare undertakings and fully fulfilling our responsibilities and missions as a corporate citizen.

#### **COMMUNITY WELFARE**

The Group always pays close attention to the interests of the community where it operates and regards improving the community well-being as an important way to realize its value. Over the years, the Group has organized various types of public welfare activities and encouraged employees to participate in these activities such as tree planting activity, sanitary activities inside and outside the factory, blood donation and safety welfare activity, to contribute to the maintenance of a comfortable and clean community environment and helping others. During the Year, the Group planted more than 40,000 trees of various kinds in the communities where it carries out business operations, which not only embellished the environment but also enhanced staff's awareness of environmental protection.



Staff participating in blood donation activity



Staff assisting in cleaning the Wetland Park

The Group actively sponsors the charity project of "Rainbow Home of Love (融愛彩虹之家)"initiated by the Beijing Rainbow Charity Foundation (北京彩虹公益基金會) to provide a space for left-behind children to meet their needs in study and life and the needs for being accompanied and cared for. In January of 2018, the first "Rainbow Home of Love" in the PRC was established in Anhui Province and was officially opened to the public. This children home is located in Dabie Mountain Area, which not only provides the local left-behind children with high quality education, but also contributes to "targeted poverty alleviation" in the old revolutionary base areas. In June of the same year, Weiqiao Aluminum & Power also donated about RMB2 million to Beijing Rainbow Charity Foundation (北京彩虹公益基金會) to help them promote equal education, support needy students, improve children's humanities and carry out education for children's spiritual growth.

In addition, the Group is also concerned about the living difficulties of needy children in Tibet. Through social platforms, our staff voluntarily organized the collection activities of used clothes, shoes and hats, lives, study and bedding, and purchased sports shoes, school bags and others at their own expense, and sent such supplies to more than 40 villagers in Tibet before the Children's Day as holiday gifts for children.



Staff sorting out the supplies for Tibet



Delivering donated living and school supplies to needy children in Tibet

## **OVERSEAS CONTRIBUTIONS**

To advocate for the economic strategy of "The Belt and Road Initiative" of the country, China Hongqiao has devoted itself to promoting the economic development of the places where it has overseas projects in recent years, and also contributing to the local economic development to fulfill its corporate social responsibility. During the Year, Mr. Zhang Shiping, the former Chairman of the Group, and Mr. Zhang Bo, the incumbent Chairman of the Group, were respectively appointed as the mentors of the "Leading Talent Training Program of the International Production Capacity Cooperation (國際產能 合作領軍人才培養計劃)" in the "First International Capacity Cooperation Leading Forum" and awarded as the "2018 Silk Road International Production Capacity Cooperation Leaders (2018 絲路國際產能合作領軍人物)" to promote a mutually beneficial model of international production capacity cooperation.

### Guinea

The SMB Winning Consortium formed by the Group, Winning International Group of Singapore, Yantai Port Group and United Mining Supply (UMS) of Guinea established in Guinea upheld the concept of "development in mutual benefit, benefiting the people". Since 2014, while developing bauxite resources, the SMB Winning Consortium has also been committed to promoting the economic and social development of Guinea, making an ongoing contribution to local employment, education, transportation, medical welfare, leisure and social sustainable projects, and creating a new mode for multi-party cooperation and mutual benefit in overseas mining development.

In December 2018, the SMB Winning Consortium and the Guinean government signed three conventions on railway construction, alumina plant construction and development of bauxite ore resources, which were unanimously approved by the National Assembly of Guinea, becoming the first convention to be approved by a unanimous vote, which has brought high recognition to the local contribution and development mode of the SMB Winning Consortium. We believe that the successful implementation of these projects will not only provide the Group with a stable supply of raw materials, but also create a large number of employment opportunities and further improve the quality of life of local residents. In addition, during the Year, SMB Winning Consortium continued to abide by relevant local laws and regulations in Guinea including the Mining Law and the Environment Law and greatly invested in the Community construction, with its actual expense exceeding the community budget of "0.5% of revenue" stipulated in the Mining Law of Guinea, which further improved the living standards of the citizens of Boké and showed the SMB Winning Consortium's performance of social responsibilities as an internal mining company.

China Hongqiao Group Limited 2018 Environmental, Social and Governance Report 39

# Contributions from SMB Winning Consortium to the Guinean Community during the Year

Employment	<ul> <li>Actively supported young people into jobs and gave priority to recruiting candidates from surrounding communities</li> <li>Promoted localization by hiring more qualified local individuals and gradually reducing the proportion of foreign employees</li> <li>Provided local employees with tailor-made training and education programs to facilitate the handover of key positions and major management positions to local employees</li> </ul>
Education	<ul> <li>Built and reconstructed schools, and improved the education level of the local community</li> <li>Cooperated with Jiangsu Maritime Vocational Institute to jointly establish the "Winning Mariners College of Jiangsu Maritime Vocational Institute (江蘇海事職業技術學院韋立船員學院)" with an aim of training the young mariners from Guinea and other West African countries</li> </ul>
Medical welfare	<ul> <li>Provided local employees with free medical services and their immediate family with medical services</li> <li>Provide local employees with free body check services annually and actively commenced education training on diseases</li> </ul>
Transportation	• Donated USD8.7 million for repairing the approximately 16 km road connecting the surrounding villages to Boké to tackle the difficulty in travelling by foot during rainy season and the road dust dispersion
Well-being	<ul> <li>Invested more than RMB1.0 million for the construction of a local water treatment plant, ensuring the water is safe for consuming</li> <li>Drilled wells in surrounding communities and repaired some existing wells with faults or damages, solving the water shortage problem</li> <li>Showed respect to local customs and culture with active involvement in the community, such as giving out rice and livestock at local festivals, participating in and funding wedding and funeral as well as religious ceremonies of local villagers</li> <li>Gave out candies, notebooks and footballs to children in local villagers before International Children's Day</li> </ul>
Culture and leisure	<ul> <li>Sponsored and organized social football matches and sponsored the local professional team</li> <li>Installed outdoor large-screen TVs with electricity supplied for villagers to watch TV shows such as football matches</li> </ul>
Sustantable community development	• Planted the cashew trees in the restored mining area and returned the administrative right of the land to the local villagers after the bloom; the mining area after reclamation will become an orchard that brings the villagers income



Boké Harmony Avenue built by SMB Winning Consortium with capital donated



Mined land restored by SMB Winning Consortium

As of December 2018, SMB Winning Consortium has directly hired more than 5,000 labors in Guinea, and the number of the subcontractors and merchants who specially served SMB Winning Consortium reached over 3,000, and more than 50,000 job opportunities (including indirect employment) have been cumulatively created in Guinea. During the Year, tax paid by SMB Winning Consortium to Guinea amounted to USD200 million. Its projects have been running smoothly in Guinea which attracted more enterprises and investors to invest in the mining, infrastructure construction and agriculture industries, hence driving the economic growth of Guinea.

#### Indonesia

PT. Well Harvest Winning Alumina Refinery ("**PT. Well Harvest Winning**"), jointly established by the Group, Indonesian Halida Group (印尼哈利達集團) and Singapore Winning Group (新加坡韋立集團), is the largest industrial alumina company in Indonesia and even in Southeast Asia, which fills the domestic industrial gap in Indonesia. By adhering to the vision of "people-oriented governance and cooperation for achieving mutual benefits", PT. Well Harvest Winning consecutively hired thousands of Indonesian labors, which greatly contributed to local employment, driving both economic and social development. In addition, PT. Well Harvest Winning has established a specialized social responsibility group to launch various projects related to the well-being of the local community such as road and bridge maintenance, construction of mosques and security guard's booths, repairing of damaged coastlines and building of schools. Besides, PT. Well Harvest Winning has actively participated in donating funds for people in need, including education funds, medical assistance and fire-safety work. During the Year, PT. Well Harvest Winning assisted the villagers in building plantations, farms and medical stations, which not only met the needs of local factories, but also enhanced villagers' income, achieving mutually beneficial development of the new society-enterprise relationship.



The primary school in Indonesia donated by PT. Well Harvest Winning



PT. Well Harvest Winning donating building materials to help the local's repairing of the damaged coastline

42

China Hongqiao Group Limited 2018 Environmental, Social and Governance Report

# **APPENDIX I: SUMMARY OF KEY PERFORMANCE INDICATORS**

KEY PERFORMANCE INDICATORS	2018	2017
Emissions		
Exhaust gas Note 1		
Nitrogen oxides (tonnes)	12,844	15,398
Sulfur dioxide (tonnes)	46,006	48,714
Particulates (tonnes)	1,833	1,766
Fluoride (tonnes)	195	204
Wastewater Note 2		
Ammonia nitrogen (tonnes)	6	N/A
Total nitrogen (tonnes)	70	N/A
Chemical oxygen demand (tonnes)	252	N/A
Greenhouse gas ("GHG")		
Total GHG emissions (scope 1&2) (ten thousand tonnes of $CO_2$ equivalent)	8,423	9,621
Scope 1 Total direct GHG emissions (ten thousand tonnes of $CO_2$ equivalent)	6,658	7,097
Scope 2 Total indirect energy GHG emissions (ten thousand tonnes of CO <sub>2</sub> equivalent)	1,765	2,524
GHG emission intensity (tonnes of CO <sub>2</sub> equivalent/tonne of production capacity per annum)	13.04	14.89
Solid waste		
Non-hazardous waste Note 3		
Total non-hazardous waste generated (ten thousand tonnes)	1,680	1,489
Non-hazardous waste intensity (tonnes/tonne of production capacity per annum)	2.60	2.30
Hazardous waste Note 4		
Total hazardous waste generated (ten thousand tonnes)	1,828	14
Hazardous waste intensity (tonnes/tonne of production capacity per annum)	2.83	0.02

China Honggiao Group Limited 2018 Environmental, Social and Governance Report 43

KEY PERFORMANCE INDICATORS	2018	2017
Use of resources		
Energy		
Total energy consumption Note 5 (TWh)	252	250
Energy consumption intensity (MWh/tonne of production capacity per annum)	39.01	38.6
Total electricity consumption Note 6 (TWh)	92	10
Total steam consumption Note 7 (ten thousand tonnes)	2,992	2,24
Water		
Total water consumption (ten thousand cubic meters)	20,084	20,83
Water consumption intensity (cubic meters/tonne of production capacity per annum)	31.09	32.2
Packaging materials Note 8		
Wood products		
Total consumption (tonnes)	4,006	2,99
Intensity (tonnes/ten thousand tonnes of finished products)	101.61	81.4
Paper products Note 9		
Total consumption (tonnes)	539	54
Intensity (tonnes/ten thousand tonnes of finished products)	13.68	14.7
Plastic products		
Total consumption (tonnes)	407	24
Intensity (tonnes/ten thousand tonnes of finished products)	10.32	6.7
Metal products Note 10		
Total consumption (tonnes)	237	31
Intensity (tonnes/ten thousand tonnes of finished products)	6.02	8.5

For a more accurate report of the Group's emissions, for the Year, the Group unitedly used the online monitoring data as basis for disclosure of emissions. The data in 2017 is restated correspondingly.

Note 2: To extend the scope of disclosure in the Report, the Group included the disclosure of water pollutants starting from the Year.

Note 3: The Group improved the statistical method of non-hazardous waste, therefore, the data in 2017 is restated. Furthermore, the data of construction waste and waste accessories were included in the scope of disclosure starting from the Year.

Note 4: The data of waste carbon residue, overhauling residue of electrolysis cells and red mud were included in the scope of disclosure starting from the Year.

Note 5: The total energy consumption includes the consumption of coal and diesel oil for generating electricity and steam, natural gas for producing aluminum products, and purchased electricity.

Note 6: The total electricity consumption of the Group includes the self-generated electricity and purchased electricity. All self-generated electricity of the Group was for internal use.

Note 7: All steam of the Group was self-generated, part of it was for internal use, and the rest was sold to external parties.

Note 8: Packaging material consumption of the Group was solely from its subsidiaries, Binzhou Hongzhan Aluminum Technology Co., Ltd.\* (濱州宏展鋁業科 技有限公司) and Zouping Hongfa Aluminum Technology Co., Ltd.\* (鄒平宏發鋁業科技有限公司). The intensity of packaging material consumption was calculated according to their corresponding total amount of finished products.

Note 9: The Group improved the statistical method of paper products, therefore the data in 2017 is restated.

Note 10: The Group improved the statistical method of metal products, therefore the data in 2017 is restated.

# **APPENDIX II: ESG REPORTING GUIDE CONTENT INDEX**

ESG Aspects	General Dis	closure and Key Performance Indicator ("KPI")	Chapters/Statement
A. Environment			
A1: Emissions	General Disclosure		Promoting Green Production – Prevention and Control of Pollution
	KPI A1.1	The types of emissions and respective emissions data.	Appendix I: Summary of Key Performance Indicators
	KPI A1.2	Greenhouse gas emissions in total and intensity.	Appendix I: Summary of Key Performance Indicators
	KPI A1.3	Total hazardous waste produced and intensity.	Appendix I: Summary of Key Performance Indicators
	KPI A1.4	Total non-hazardous waste produced and intensity.	Appendix I: Summary of Key Performance Indicators
	KPI A1.5	Description of measures to mitigate emissions and results achieved.	Promoting Green Production – Prevention and Control of Pollution, Promoting Green Production – Energy Conservation and Consumption Reduction, Promoting Green Production – Green Office
	KPI A1.6	Description of how hazardous and non- hazardous wastes are handled, reduction initiatives and results achieved.	Promoting Green Production – Prevention and Control of Pollution, Promoting Green Production – Green Office

ESG	Aspects	General Dis	closure and Key Performance Indicator ("KPI")	Chapters/Statement
A2:	Use of Resources	General Disclosure		Promoting Green Production – Energy Conservation and Consumption Reduction
		KPI A2.1	Direct and/or indirect energy consumption by type in total and intensity.	Appendix I: Summary of Key Performance Indicators
		KPI A2.2	Water consumption in total and intensity.	Appendix I: Summary of Key Performance Indicators
		KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Promoting Green Production – Energy Conservation and Consumption Reduction, Promoting Green Production – Green Office
		KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Promoting Green Production – Prevention and Control of Pollution, Promoting Green Production-Green Office
		KPI A2.5	Total packaging material used for finished products and with reference to per unit produced.	Appendix I: Summary of Key Performance Indicators
A3:	The Environmental and Natural Resources	General Disclosure		Promoting Green Production
		KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Promoting Green Production

ESG	Aspects	General Dis	closure and Key Performance Indicator ("KPI")	Chapters/Statement
В.	Social			
Emp	oloyment and Lab	our Practice	25	
B1:	Employment	General Disclosure		Adhering to People-Oriented Governance – Recruiting Talents, Adhering to People- Oriented Governance – Talent Cultivation, Adhering to People-Oriented Governance – Caring for Employees
		KPI B1.1	Total number of employees by gender, type of employment, age group, and region.	No relevant disclosures during the Year
		KPI B1.2	Employee turnover rate by gender, age group and region.	No relevant disclosures during the Year
	Health and Safety	General Dis	closure	Adhering to People-Oriented Governance – Health and Safety
		KPI B2.1	Number and rate of work-related fatalities.	No relevant disclosures during the Year
		KPI B2.2	Lost days due to work-related injury.	No relevant disclosures during the Year
		KPI B 2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Adhering to People-Oriented Governance – Health and Safety
B3:	Development and Training	General Dis	closure	Adhering to People-Oriented Governance – Talent Cultivation
		KPI B3.1	The percentage of employees trained by gender and employee category.	No relevant disclosures during the Year
		KPI B3.2	The average training hours completed per employee by gender and employee category.	No relevant disclosures during the Year

ESG	Aspects	General Dis	closure and Key Performance Indicator ("KPI")	Chapters/Statement
B4:	Labor Standards	General Disclosure		Adhering to People-Oriented Governance – Recruiting Talents
		KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Adhering to People-Oriented Governance – Recruiting Talents
		KPI B4.2	Description of steps taken to eliminate such practices when discovered.	No relevant disclosures during the Year
Оре	erating practices			
B5:	Supply Chain Management	General Dis	closure	Pursuing Excellence in Quality – Supply Chain Management
		KPI B5.1	Number of suppliers by geographical region.	No relevant disclosures during the Year
		KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Pursuing Excellence in Quality – Supply Chain Management
B6:	Product Responsibility	General Dis	closure	Pursuing Excellence in Quality – Quality Management and Innovation and Development, Pursuing Excellence in Quality – Sales and Services, Pursuing Excellence in Quality – Privacy Protection
		KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	No relevant disclosures during the Year
		KPI B6.2	Number of products and service-related complaints received and how they are dealt with.	No relevant disclosures during the Year
		KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	No relevant disclosures during the Year
		KPI B6.4	Description of quality assurance process and recall procedures.	Pursuing Excellence in Quality– Quality Management and Innovation and Development
		KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Pursuing Excellence in Quality – Privacy Protection

ESG Aspects		General Disclosure and Key Performance Indicator ("KPI")		Chapters/Statement
B7: Anti- corruption		General Disclosure		Pursuing Excellence in Quality – Anti-Corruption Practice
		KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Pursuing Excellence in Quality – Anti-Corruption Practice
		KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Pursuing Excellence in Quality – Anti-Corruption Practice
Community	1			
B8: Comm	nunity	General Disclosure		Caring for Social Well-Being
Invest	ment	KPI B8.1	Focus areas of contribution.	Caring for Social Well-Being
		KPI B8.2	Resources contributed to the focus area.	Caring for Social Well-Being