

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



2016

Environmental, Social and Governance Report



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ABOUT THIS REPORT

This report is the first Environmental, Social and Governance Report (“**ESG Report**”) of China Hongqiao Group Limited (the “**Company**”) and its subsidiaries (“**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 fulfilment of corporate social responsibility as well as the performance in corporate governance throughout 2016.

REPORTING SCOPE

The ESG 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**”) from 1 January 2016 to 31 December 2016 (the “**Year**”). For details on corporate governance, please refer to the Corporate Governance Report of the annual report of the Group.

REPORTING STANDARD

The ESG Report has been prepared in accordance with Appendix 27: Environmental, Social and Governance Reporting Guide to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited.

STAKEHOLDER ENGAGEMENT

The Group has engaged its employees from different divisions in the preparation of the ESG Report to better demonstrate its environmental and social performance. The information collected for the ESG Report not only summarizes the environmental and social initiatives of the Group in the Year, but also forms the basis of the Group’s short-term and long-term strategy of sustainable development.

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) and annual reports. The Group values your opinions on this report. Should you have any comments or suggestions, please email us via zghqesg@hongqiaochina.com.





CHAIRMAN'S STATEMENT

As the world's leading aluminum manufacturer, China Hongqiao always strives for excellent sustainable development. Besides the pursuit of economic benefits, we place much importance on the realization of corporate social values. We aim at rational planning throughout the whole industry chain of aluminum production, emission reduction and efficiency enhancement as well as sustained growth momentum. This is the first ESG Report of China Hongqiao and we would like to take this opportunity to explain the Group's development philosophy, initiatives and ideas in fulfilling its corporate social responsibilities, and its efforts in improving corporate governance. Also, we hope that through this report, our employees, business partners, shareholders and the community where we operate can further familiarize themselves with the vision and core values of China Hongqiao.

In recent years, the aluminum industry in China has developed rapidly with its value chain extending from our home country to overseas, which established a global-scale industrial structure.

China Hongqiao has adhered to and furthered the development strategies of "Global Integration", "Integration of Upstream and Downstream Businesses" and "Integration of Aluminum and Electricity". For overseas projects, the Group endeavored to bring development to the local communities where its business are located while realizing international capacity cooperation and commercial values, with an aim to create a soundly developing ecosystem with its business partners. The Group successfully created a complete bauxite supply chain in Guinea, linking Africa and China, which not only ensures a stable source of upstream raw materials, but also contributes to the employment, medical welfare, tax revenue and infrastructures in Guinea. The Group's joint venture alumina production base project in Indonesia, with a designed annual capacity of one million tons has made great progress since its operation in the first half of 2016. With its capacity being gradually utilized in full, the alumina production base has not only satisfied the needs for the Group's operation and production, but also facilitated development of local alumina and power industry in Indonesia. Adhering to the principle of "teaching a man how to fish rather than giving him a fish", we have been creating job opportunities and cultivating a group of specialists in manufacturing.

For domestic operation, the Group has strictly implemented environmentally friendly production methods in compliance with national environmental requirements and regulations and invested in the development of green production. In recent years, the Group increased its investment in ultra-low-emission thermal power units, and launched an ultra-low-emission transformation for all generating units in 2014. At present, all thermal power units have achieved better emissions standards than gas-fired units. Furthermore, the Group's installed capacity of the power plants has further increased and the level of self-generated power supply is steadily enhanced, providing sufficient energy support for the development of high-end aluminum industrial cluster of the Group. In particular, apart from the world's leading 600kA ultra-large prebaked anodic aluminum electrolytic cell which has been put into operation, the intelligent production technology of the Group has basically



Zhang Shiping
Chairman





achieved unmanned workshop operation. In view of the above accomplishments, the Group was awarded the “Pioneer in Energy Efficiency” by the National Development and Reform Commission of the PRC, the Ministry of Industry and Information Technology of the PRC and the General Administration of Quality Supervision, Inspection and Quarantine of the PRC in 2016 in recognition of its achievements in energy saving and emission reduction.

The Group believes employees are the most important assets and inspires them with creativity and sense of belonging from various aspects. In addition to providing competitive remuneration packages, the Group actively creates a safe and environmentally friendly production and office environment for our staff, provides regular training on business skills and advises on their career development planning based on individual circumstances. The Group attaches great importance to the development of the comprehensive “soft power” of its staff, and organizes various cultural, sports and recreational activities to enhance trust among teams and colleagues. We also strongly encourage our staff to participate in community development and voluntary service.

For corporate governance, the Group has carefully reviewed all aspects of business development and established an effective set of tender and financial compliance systems. To facilitate the development of the Company, we are keen to maintain effective communication among departments, set clear division of labor for production and operation and establish reward and penalty mechanism as well as accountability mechanism. Members of the board (“**Board**”) of directors (“**Directors**”) of the Company perform their respective duties and serve our shareholders and employees with a professional and conscientious attitude and an open and transparent manner.

In accordance with the characteristics of the Company and Binzhou City, Shandong Province, the Group has made its best effort to push forward the development of the industrial cluster to form a completely closed loop for upstream, midstream and downstream. With integrated advantages of large output, low overall cost, high conversion rate of production to sales and stable production quality, the cluster has become a complete industrial system on its own with strong systematic resilience to risk. In addition, the Group proactively shouldered the corporate social responsibilities by contributing to the industry development: at the beginning of 2016, the Group participated in and advocated the establishment of the Antaike Aluminum Ingot-Spot Index by Beijing Antaike Information Development Co., Ltd. (“**Antaike**”). For more than two years since its launch, the new index has showcased its fairness as a third party, reflected the actual demand and supply level and regulated market order, providing strong support and guiding impact to the aluminum price.

In the future, in earnest pursuit of its “innovative, harmonious, green, open and sharing” development philosophy, the Group will continue focusing on six aspects, including “technology-driven production, intelligent manufacturing, green development, international cooperation, talent cultivation and cooperation in development”. Through advancing transformation and upgrade and enhancing quality and efficiency, the Group will strive to establish a world-class modernized international conglomerate with excellence in governance so as to make greater contribution to the economic and social progress.

Zhang Shiping

Chairman of the Board

5 February 2018





ABOUT CHINA HONGQIAO

CORPORATE PROFILE

China Hongqiao Group Limited is a limited liability company incorporated in the Cayman Islands, the shares of which are listed on the Main Board of The Stock Exchange of Hong Kong Limited. As a global leading aluminum product manufacturer, the Group is principally engaged in the manufacturing and sales of molten aluminum alloy, aluminum alloy ingots, aluminum alloy casting-rolling products and aluminum busbars.

Leveraging its intensive, energy-saving and efficient production model of “keeping molten aluminum off the ground” which directly delivers molten aluminum to downstream manufacturers, China Hongqiao has explored a development path of “Integration of Aluminum and Electricity” and “Integration of Upstream and Downstream Businesses” to form a whole industrial chain which integrates thermoelectricity, mining, alumina, primary aluminum, intensive processing of aluminum and new materials. As of the end of the Year, China Hongqiao has set up nine production bases in Zouping, Weiqiao, Binzhou district, Huimin, Yangxin, Beihai, Zhanhua, Indonesia and Guinea with an aggregate designed annual production capacity of aluminum products amounting to approximately 7,436,000 tons. Our production cost and other indicators such as full labor productivity and labor efficiency per capita reach leading level in the world’s aluminum industry.

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 China; BAIC Group and other renowned domestic and overseas enterprises. Intensive processed aluminum products are well recognized by customers such as Ball Corporation, Pacific Can and CPMC. In recent years, the intensive processing sector has achieved rapid development. Major products such as cans and lids materials and double zero foil billets have been successfully developed and put on the market in large quantities. Product quality has reached the advanced level in China. Can materials are widely used for the packaging for all beverages, such as beers, carbonated drinks, herbal tea, soft drinks, juices, coffee, energy drinks, and so on.





MANAGEMENT PHILOSOPHY

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 and developing and introducing advanced production equipment, and has commenced standardized, scientific, informatized and professional management in its operation.

Along with its continuous self-development, China Hongqiao has paid great attention to playing a leading role in promoting the formation of a distinctive industrial cluster in Binzhou City, Shandong Province, which drives the joint development of upstream and downstream enterprises and enhances the competitiveness of the whole industry. At the beginning of 2016, China Hongqiao advocated and participated in the establishment of the Antaike Aluminum Ingot-Spot Index, and took part in discussions regarding international aluminum industry development, contributing ideas and efforts to the industry development.

China Hongqiao upholds the principle 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 responded positively to China’s strategic planning of “The Belt and Road”, by promoting international capacity 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 Chinese enterprises in the global market, but also boosts the local economy and the construction of infrastructure, which are highly praised by the local government and residents.



STAKEHOLDER COMMUNICATION

China Hongqiao places great emphasis on stakeholder engagement. We listen and respond to opinions and aspirations of the stakeholders through various channels so as to review and enhance our performance in environmental, social and corporate governance. Also, we keep on improving communication with stakeholders to increase communication effectiveness.

Stakeholders	Expectations and aspirations	Communication modes
Government and regulatory authorities	Operation in compliance Fulfillment of tax obligations Promotion of local economic development Creation of job opportunities	Regular submission of information Regular communication with regulatory authorities
Shareholders	Investment returns Operation in compliance Production safety	Announcement by the Group Special report On site inspection
Customers and business partners	Integrity and fulfillment of agreements High quality products High quality services	Business communication Customer feedbacks
Environment	Fulfillment of emission standards Energy conservation and emission reduction Efficient use of water resources	Communication with local environmental protection department Communication with local residents
Industry	Setting up industry standards Promotion of industry development	Communication with local labor departments Participation in industry forums Visits and inspections with industry peers
Employees	Occupational health Remuneration and benefits Career development Employee caring	Employee representatives meeting Round-table democratic seminars Recommendation box
Community	Improvement of community environment Support for community welfare	Communication with the community Mutual visits
Media	Openness and transparency of information	Website of the Group Announcement by the Group Interviews



PROMOTING GREEN PRODUCTION

2016 is the first year of China's "13th Five-Year Plan". Protecting ecological environment and constructing ecological civilization is an important national strategy during the "13th Five-Year Plan." With climate change, resource shortage and environmental pollution being increasingly severe today, green development is the eternal theme of electrolytic aluminum industry. As an enterprise of the high-energy and high-pollution industry, China Hongqiao always treats environmental protection as a priority by implementing energy conservation and emission reduction, and insisting on building a sustainable electrolytic aluminum production enterprise with high standards and strict requirements. It never sacrifices the environment and wastes resources for the sake of business growth. During the Year, in strict compliance with environmental laws and regulations of the state and places of operation, China Hongqiao started from the four aspects of prevention and control of pollution, energy saving and consumption reduction, resource recycling and reusing, and green office to promote green production.

PREVENTION AND CONTROL OF POLLUTION

The Group has a dedicated environmental protection department which is responsible for formulating its internal environmental protection policies and guidelines in accordance with applicable environmental laws, regulations and standards, formulating environmental risk contingency plans, organizing training and emergency drills on environmental incidents, implementing environmental performance appraisal for each production unit, and monitoring the operation of environmental protection facilities and discharge standards.

In recent years, while upgrading and transforming environmental protection facilities, the Group has also continuously stepped up its internal environmental supervision and management and integrated the operation of environmental protection facilities into its day-to-day production management system. The Group has also implemented 24-hour real-time monitoring of the compliance with pollutant discharge standards and operational parameters of environmental protection facilities to ensure their long-term stable operation and compliance with standards.





Exhaust Gas Treatment

The Group's emissions of exhaust gas mainly come from power plant boilers and aluminum production processes, which are 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 emission level of the enterprise can be monitored remotely and continuously.

Sources of exhaust gas	Major components	Processing facilities and processes
Power plant boiler	Nitrogen oxides	Denitration system: Low-nitrogen combustion + SCR (Selective Catalytic Reduction) process
	Smoke and dust	Dust removal system: High-efficiency electrostatic precipitator + wet dust collector or tube type dust collector
	Sulfur dioxide	Desulfurization system: Limestone-gypsum wet desulfurization and magnesia wet desulfurization
Alumina plant	Sulfur dioxide	Desulfurization system: Mangrove plastic wet desulfurization
	Nitrogen oxides	Denitration system: Low-nitrogen combustion + SNCR (Selective Non-Catalytic Reduction) + SCR process
	Particulates	Dust removal system: Electric-bag composite dust removal
Electrolytic aluminum plant	Sulfur dioxide	Dry flue gas purification system: Alumina adsorption + bag dust capture
	Fluoride	
	Particulates	
Aluminum deep processing plant	Aluminum melting furnace, holding furnace, ingot heating furnace emissions	Emit after disposal by bag filter
	Gas produced from hot rolling and annealing process	Collected by gas-collecting hood and emit after disposal by spray and fogging process





In order to further reduce emissions and improve surrounding eco-environment, the Group continued to increase its investment in environmental protection and upgraded all thermal power units to achieve ultra-low emission in recent years. At present, the transformation of all units has been completed. In addition, the Group also conducted environmental improvements on the coal yards, alumina plants to reduce the impact of emissions on the atmospheric environment.

Ultra low emission power plant transformation

- During the year 2014, we launched an emission retrofit on each of our power plants: The desulphurization system adopts the retrofit technology of adding two-stage absorption tower or rotary coupling device. The dust removal system adopts ultra-low retrofit technology that adds wet electrostatic precipitator or tube bundle dedusting to ensure the desulfurization efficiency reaches over 99% through the co-processing, and dust removal efficiency is not less than 99.987%;
- After the transformation is completed, all the exhaust gas emitted from the power plants has reached the emission level of gas turbine unit, and fulfilled the requirements of Amendment II to the Emission Standards of Air Pollutants for Thermal Power Plants in Shandong Province (DB 37/664-2013).

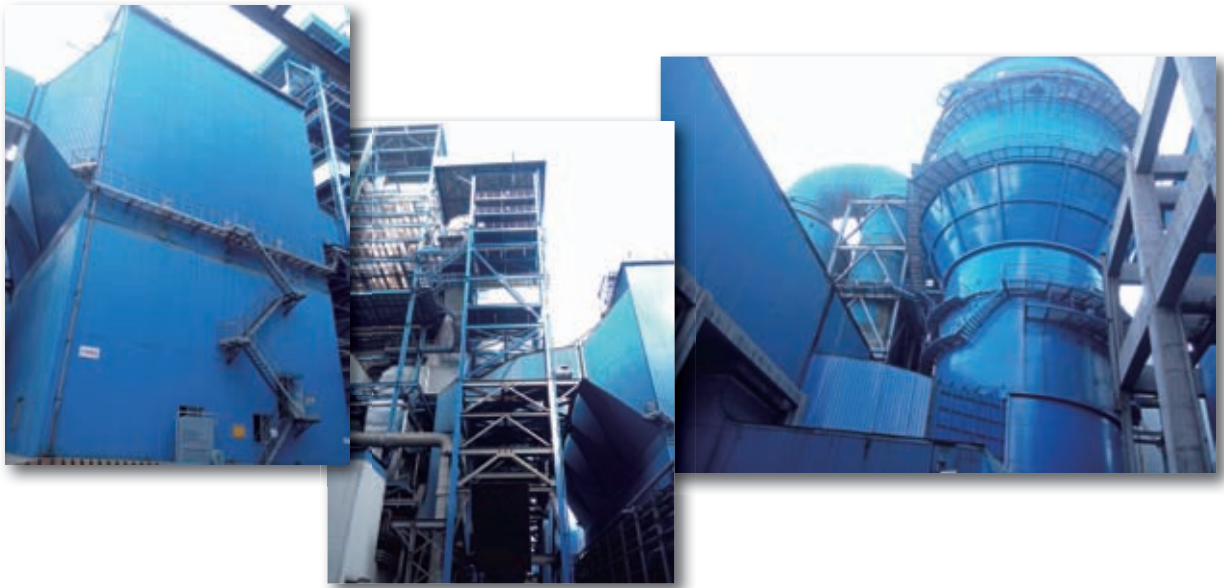
Enclosed coal yard transformation

- During the Year, we remodeled the original dry coal sheds and open-cast coal yards of the power plants, demolished the original wind-proof and dust-proof grids, added a fully enclosed coal storage site with a grid structure and adopted an enclosed space tube truss structure. Meanwhile, repair and improvement work of anti-seepage at coal yard and peripheral roads are carried out, and equipped with automatic sprinkler system, fire fighting facilities, and so on;
- After the transformation is completed, the fugitive emission in the coal yard can be drastically reduced and the surrounding environment of the plants can be effectively improved.

Alumina plant denitration transformation

- During the Year, we carried out denitration transformation on the alumina plant, using low nitrogen combustion + urea SNCR + SCR process;
- After the transformation is completed, it can be ensured that the pollutants can fulfill the requirements of the fourth period of the Integrated Emission Standard for Regional Air Pollutants in Shandong Province (DB 37/2376-2013) (Only a pilot transformation at present).





Exhaust gas treatment facilities

Wastewater Treatment

The wastewater discharged by the Group mainly consists of production wastewater and domestic sewage. The wastewater is processed in the factory for simple pretreatment to meet the requirements of Water Quality Standards for Discharge to Municipal Sewers (GB/T 31962-2015) and be discharged into the local municipal sewage treatment plant through municipal pipeline. 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 on-line monitoring system and connected with environmental protection departments, and the relevant data is uploaded on a real-time basis; the local environmental protection department will also take samples regularly and perform testing at site.

In order to improve water-use efficiency in the production process and reduce wastewater generation and discharge, the Group has implemented various measures such as:

- 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;
- An initial rainwater collection pool is constructed in the aluminum factory park, and the rainwater collected is used for production purposes after treatment;
- Water discharged from the cooling water tower of the power plant is recycled in priority; and
- Water used for spraying and cleaning of vehicles is recycled and used to a certain extent before being applied for coal yard spraying.





Waste Disposal

The final solid waste generated by the Group can be classified into general 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
General 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
	Iron powder	Sold to external parties for comprehensive utilization
Hazardous waste	Waste lubricants, waste denitration catalyst	Sold to qualified companies to extract valuable ingredients through smelting, purification and other methods
	Coal tar	Entrusting qualified entities for handling





Prevention and Control of Red Mud Pollution

Red mud produced during the alumina production process is a kind of strong alkaline hazardous solid waste. If the red mud is disposed of improperly, the groundwater, soil and atmosphere will be seriously 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 and Pollution to conduct prevention and supervision of red mud, including taking strict leakage prevention and safety management measures against red mud storage facilities, and setting up a number of groundwater observation wells. Red mud is discharged into the red mud storage facility after it is dewatered and filtered. A control zone is set up around the alumina production facility and the red mud storage facility.



Red mud yard and monitoring well

ENERGY SAVING AND CONSUMPTION REDUCTION

With scientific and effective lean management and tireless exploration and innovation, in recent years, the Group has made remarkable achievements in saving energy and reducing consumption. The production cost reaches leading level in China's aluminum industry, setting a new example of energy conservation in the industry.

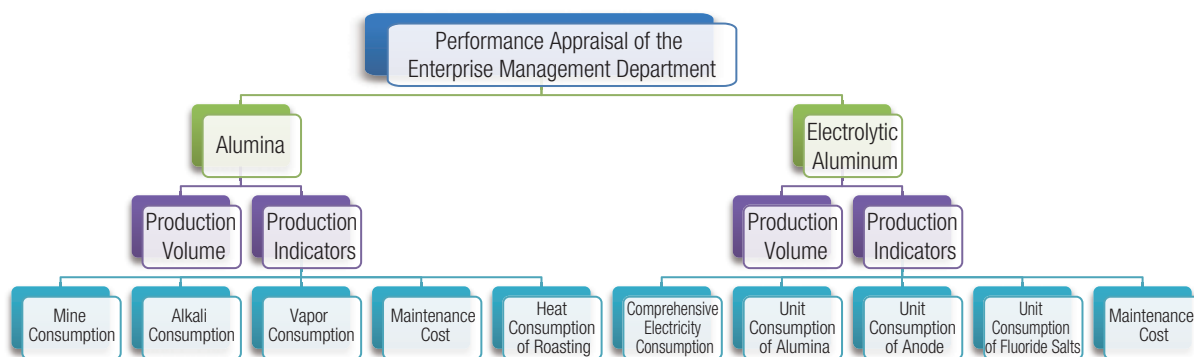
Energy Consumption Management

The Group strictly complies with the laws and regulations, standards and industry norms on energy management, energy measurement and energy consumption quotas, including but not limited to Aluminum Industry Standardization Requirements, Integrated Energy Consumption Limit for Electrolysis Aluminum (DB 37/743-2007), Specification for Equipments of Energy Measuring Instruments (Q/SY1212-2009), General Principle of Energy Audit on Industrial and Commercial Enterprise (GB/T 17166-1997) and the Norm of Energy Consumption Units for Products of Aluminum Metallurgical Enterprise (GB 21346-2013) and so on.





The Group has set up the Enterprise Management Department responsible for overseeing the energy conservation and emission reduction work during the production process so as to reduce waste. The Enterprise Management Department formulates a monthly quota plan for each production unit and conducts monthly performance appraisal on the fulfilment of indicators of each production unit. The appraisal result is linked with the salary and bonus of all employees of the production unit.



Awarded the “Pioneer in Energy Efficiency”

During the Year, the Group’s subsidiaries, Shandong Hongqiao New Material Co., Ltd. and Shandong Weiqiao Aluminum & Power Co., Ltd., were awarded the “Pioneer in Energy Efficiency” in the high-energy-consuming industries jointly awarded by the National Development and Reform Commission of the PRC, the Ministry of Industry and Information Technology of the PRC and General Administration of Quality Supervision, Inspection and Quarantine of the PRC. Only two enterprises in the PRC received this award, highlighting the Group’s outstanding strength and corporate determination in energy saving and emission reduction.

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 saving, 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 total of 30 energy saving projects, such as the AIG (Ammonia Injection Grid) optimization and adjustment project for denitration system, forced flash evaporator optimization project, and so on, as well as 10 technological transformations, such as the conversion of a six-effect evaporator to a seven-effect evaporator, the enhancement and improvement of reheat steam temperature, and so on.



Examples of Energy-saving Transformation

AIG Optimization & Adjustment Project for Denitration System	Forced Flash Evaporator Optimization	Conversion of Six-effect Evaporator to Seven-effect Evaporator
<ul style="list-style-type: none"> The ammonia consumption and ammonia slip of the denitration system are effectively reduced through the optimization and adjustment of boiler by the operation of AIG, hence the blockage of the air preheater is mitigated and the safety and economy of the boiler operation can be enhanced. The amount of liquid ammonia saved per year is approximately 1,534 tons. 	<ul style="list-style-type: none"> The solution is led from the outlet pipe of the mandatory discharge pump to the flash tank, and enters the salt subsidence trough for further concentration of the forced solution after vaporization in flash tank, thereby reducing the temperature of the solution, increasing the salinity of the pressure filter, reducing the steam consumption of the forced effect, and saving about 1,200 tons of steam per year. 	<ul style="list-style-type: none"> The evaporation plant is converted from the original design of two six-effect evaporators to seven-effect evaporators. With an additional evaporation room, the total heating area and utilization rate of spent steam are increased while the vapor consumption of evaporation station is decreased. The amount of vapor saved per year is approximately 43,411 tons.



Conversion of six-effect evaporator to seven-effect evaporator



Forced flash evaporator optimization



Technological Revolution

Apart from energy-saving transformation, the Group also reduces its production costs and achieves a win-win situation of protecting the environment and gaining economic benefits through research and development (R&D) or introduction of new equipment and technologies as well as optimization of production technology. The Group, in cooperation with the Northeastern University Engineering & Research Institute Co., Ltd., developed and constructed the world's first 600kA ultra-large prebaked anodic aluminum electrolytic cell series. Possessing the "seven best features" of the largest single cell capacity, the least investment per ton of aluminum, the best quality of liquid aluminum, the lowest energy consumption, the best production environment, the highest degree of automation and the minimum employment of manpower, the devices have been put into commercial operation since December 2014 and can produce 600,000 tons of quality premium aluminum per year. The DC power consumption is less than 12,500 kWh/ton of aluminum, with an flue gas purification efficiency of more than 99.8%. The project won the "first prize of Science and Technology Award of China Nonferrous Metals Industry, and its successful operation has become an important milestone in the technological progress of aluminum electrolysis cells" in China, signifying that the Group has reached the world's advanced level in the development and industrial application of electrolytic aluminum large cells.



600kA ultra-large prebaked anodic aluminum electrolytic cell



RECYCLING RESOURCES AND REUSING

Engaging in the circular economy is the only way for industrial enterprises to achieve sustainable development. The Group is fully aware of this and vigorously moving towards a circular economy in its production and operation. Not only does it contribute to solving the global problem of red mud treatment and comprehensive utilization through smelting iron and brick by red mud, but also achieves the “full utilization” of waste and turns waste into treasure through the recycling and utilization of fluoride salts, as well as the recycling and reusing of production wastes.

Iron Extracting and Brickmaking from Red Mud

Containing numerous recyclable mineral elements, red mud is a kind of solid waste which has extensive usage foreground. However, the treatment and comprehensive utilization of red mud has always been a global problem due to its strong alkalinity which is difficult to be removed. The red mud generated by the Group is mainly used as raw materials for iron extracting and brickmaking.



Process of iron extracting from red mud



Process of brickmaking from red mud
(pictures from websites)

Dry Method of Fluoride Salt Recycling and Reusing

Flue gas produced from electrolytic cells contains fluoride. By utilizing the absorbability of alumina to fluoride, the fluoride in flue gas is adsorbed by the alumina of the dry-cleaning technology processing system at its surface and produces aluminum fluoride, which then enters solid phase from gas phase. After recovered by bag and added into electrolytic cells, the aluminum containing fluoride can replace fresh alumina, achieving the purpose of fluoride salt recycling.



Dry method of fluoride salt recycling facilities

Waste Recycling and Reusing

By using dual chamber furnace process to melt the scrap with impurities, recycled materials, waste collected from the market, and/or clean materials, the Group recycles and reuses the waste aluminum produced during the production process so as to reduce the generation of industrial waste. This process provides a comprehensive and easy-to-handle system, especially for melting thin-walled and scrapped materials. The key design is to provide the best process to reduce the metal loss of thin-walled material and the environmental impact of waste aluminum recycling process.



The Group adopts flotation process and comprehensively utilizes the waste carbon residue (slag) generated from the aluminum electrolysis 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 for anode carbon blocks production. 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.

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 promote 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 style="list-style-type: none"> • Posting water-conservation slogans in toilet • Purchasing and using water-saving appliances • Strengthening daily maintenance of water meters, plumbing and water appliances to avoid the “running”, “spraying”, “dripping” and “leakage” of water • Reusing of steam condensation • Changing supply pumps of domestic water and purified water and improving the utilization efficiency of devices 	<ul style="list-style-type: none"> • Posting energy-conservation slogans in office • Purchasing and using office supplies with energy efficiency labels • Turning off power supply of various kinds of electrical appliances after work to reduce standby energy consumption • Installing LED and other lightings with high efficiency • Strengthening lighting power management, and turning on the lights selectively in big office • Installing voice-activated switch in staircases • Setting temperature of air conditioners at 26°C or above during summer • Using video and teleconferences to replace unnecessary business trips 	<ul style="list-style-type: none"> • Posting paper-saving slogans in office • Making full use of paperless office platform, intranet, communication software and other channels to process documents online • Reducing font size and margins when printing, so that the text format fits the paper better, and promoting double-sided printing and paper recycling • Sharing printer to reduce idle equipment • Collecting and reusing paper bags and file boxes • Adhering to the principle of “liaison first, then reporting”, so as to strengthen the review and reporting of various types of proposals • Repairing and using old and waste materials, so as to improve utilization efficiency of materials





ADHERING TO PEOPLE-ORIENTED GOVERNANCE

China Hongqiao has continued its success and maintained market leadership since its incorporation, which is closely linked to the support of a group of dedicated, hard-working and task-oriented employees. China Hongqiao has always regarded its employees as the most valuable wealth. In addition to safeguarding the legitimate rights and interests of employees, maintaining their physical and mental health and providing generous benefits, China Hongqiao has provided vast opportunities of career development for every employee, striving to match employees' personal planning with the business development goals of the enterprise through scientific talent training system, effective incentive mechanism and fair competition platform, so that mutual benefits for employees and the enterprise can be achieved.

RECRUITING TALENTS

In order to cooperate with the continuously growing business scale, we recruit talents from different cultures, different backgrounds and different regions to join our team. 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. The legitimate rights and interests of employees are protected in accordance with laws.

Employment Policy

The Group recruits employees through various channels, including internal staff recommendation, open recruitment, online recruitment, campus recruitment, attending talent exchange meeting, on-site recruitment in labor market, engaging professional headhunting agencies or industry associations, and so on. Adhering to the principle of equal opportunity, the Group considers and employs talents in a fair, open and just manner and 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, but also strictly prohibits any employee to work overtime on a compulsory basis or arranging work beyond their job duties. Exit interviews will be conducted by the Group for departing employees to find out their reasons of leave and improvement will be made according to their suggestions.

In respect of remuneration, the Group has established a sound remuneration management system and provides competitive remuneration packages to attract talents. Each department regularly assesses and adjusts the wage level according to the salary standard of the post, the workload, work completion status, years of service, skill levels of the employees and other factors. In order to evaluate employee performance fairly and objectively, the Group has also formulated the "Employees Performance Dynamic Management System" as the basis for rewarding the outperformed and punishing the underperformed employees. The Group grants extra bonuses as incentives to outstanding employees to enhance the quality of work, work efficiency and motivation of the employees.





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 such as the occurrence of serious natural disasters, emergencies and equipment failure. Overtime payment is made to employees in accordance with the applicable standards stipulated in the laws and regulations such as the Labor Law of the PRC. In respect of holidays, all employees enjoy statutory holidays, home leave, marital leave, funeral leave, maternity leave and other holidays as stipulated by the state and places of operation.

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

The implementation of “strong enterprise with great talents” is one of the strategic goals of the Group. The Group values every outstanding talent by not only creating the best path of promotion 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

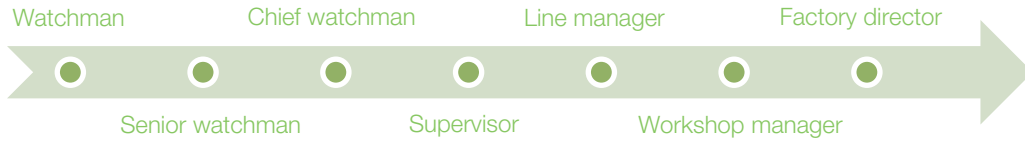
Besides serving as the basis for employees’ compensation adjustment, the “Employees Performance Dynamic Management System” is also an important basis for employee competition, promotion and change of position. Employees who have achieved outstanding results in performance appraisal will be given priority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

In addition, the Group has also set up a selection and employment mechanism that can better identify the outstanding talents from the peers. The “Job Selection System” is adopted in each production unit. 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.

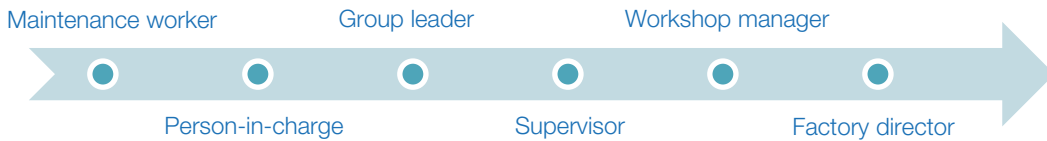




Career path (operation)



Career path (maintenance)



Employees' Training

The Group has established a comprehensive and diversified employee training system to formulate the most suitable training programs for employees in different departments, types of work, positions and levels. By combining internal training and external training, the Group intends to comprehensively improve the political senses, professional quality, professional and technical standards, safety awareness and management skills of all the employees. During the Year, the Group has not only formulated and implemented a series of specific training programs, including job training, professional and technical personnel training, elementary management training and middle and senior management training, but also organized more than 50 staff members to participate in the management training program provided by Binzhou Vocational College every month, for the purpose of improving the management skills of employees and enhancing the smoothness of business operation.

Trainee	Training goals	Method and content of training
Middle and senior management cadre	To improve management skills and overall quality of management cadres	Participated in training classes for middle and senior management cadre; cadre warning education is performed through watching the film for integrity advocacy, television, educational readings, corruption punishment cases, warning videos, and so on.





Trainee	Training goals	Method and content of training
Branch factory employees	Employees to meet eligibility criteria and can operate independently	New employees: receive 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/after changing position: learn job responsibilities, fire safety and emergency knowledge, environmental protection knowledge and the related skills of the assigned position
Workshop employees	Employees to meet eligibility criteria and can operate independently	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	Trainings targeting at quality, business skills, expertise and services
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



Employees' training



Apart from the items listed in the training programs, the Group will also launch targeted training and organize relevant personnel to attend seminars upon receiving customer-specified product requirements or product performance improvement advices. In order to keep track of the training results and optimize the training system, the Group has also set up a training and assessment mechanism which covers safety examination, professional examination, skill examination, and so on.



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, Special Equipment Safety Law of the PRC, the Interim Regulations for the Supervision and Administration of the Safety Production Accident Potential, Regulations on Safety Training of Production and Business Units and Regulations on Safety Production in Shandong Province, the Group developed a comprehensive and detailed safety management system and accident emergency plan.

In order to effectively identify and prevent accidents during production, the Group sets June as the safety month of each year; and activities focusing on learning rules and regulations, reviewing and analyzing various types of accidents are organized during safety months. In order to strengthen 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 carried out a number of upgrades such as automation upgrading and revamping of crane slag facilities, automation upgrading and revamping of crane feeder systems and automation upgrading and revamping of bus bar enhancement framework, which not only reduced labor intensity but also improved the working environment and reduced safety risks.



Employees’ safety training

In order to further enhance safety awareness of employees, the Group organizes and conducts safety training systematically. The training covers various topics such as national safety production policies and relevant laws and regulations, safety production management knowledge, major hazard sources management, typical accidents and case studies of emergency rescue, and so on. In addition, the Group also requires all newly recruited employees to receive three-level safety training education including factory level, workshop level and team level. In addition to the above, the Group also organizes safety drills and emergency drills to continually enhance employees’ safety awareness and response ability to accident.

Occupational Health Management

In respect of occupational health management, the Group has formulated the “Occupational Health Management System” in accordance with the Work Safety Law of the PRC and the Law of the PRC on the Prevention and Control of Occupational Diseases, which is conscientiously implemented in production and operation. This system covers 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 operation and protective functions of these protective supplies and 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 of employees regularly. Occupational health checks will also be provided for employees when they leave the Group.



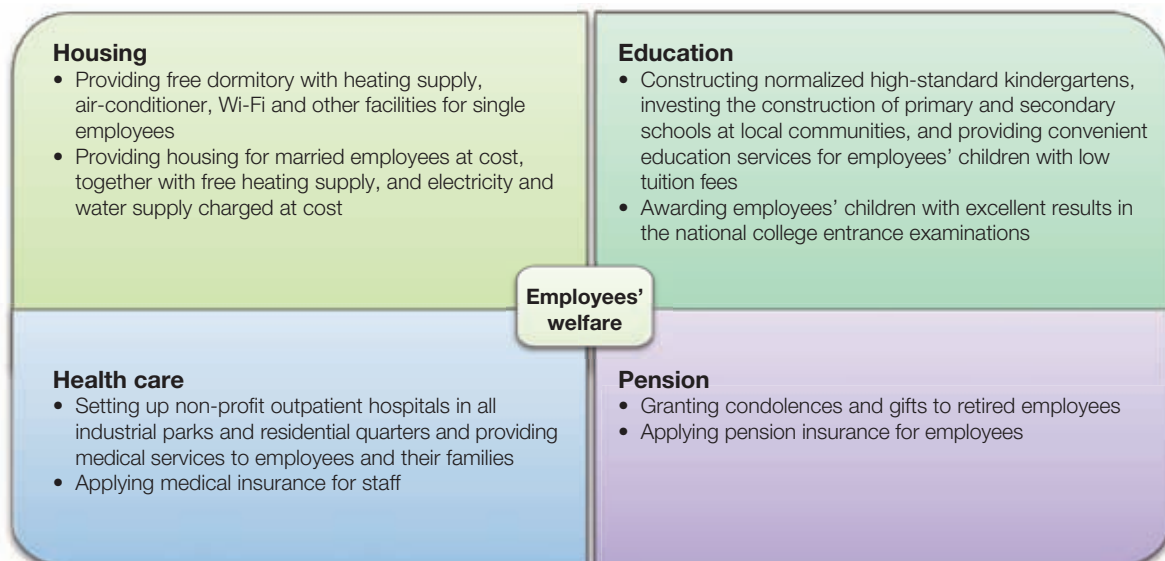
Employees wearing labor protective supplies

CARING FOR EMPLOYEES

The support and dedication of each employee is indispensable to 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 have established and are continuously improving the employees' welfare system that integrates housing, education, health care and pension insurance mechanisms.



Aiding Employees in Need

The Group has always insisted on 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 illness, or whose families encounter misfortunes or difficulties in life. During the Year, the Group assisted a total of 22 employees in need by providing each of them with relief payments ranging from several thousands RMB to more than ten thousands RMB, helping them to get out of their predicament and resume normal life as soon as possible.



Offering relief payment to employees in need

Cultural and Sports Activities

In order to help employees achieve work-life balance, enrich their spare-time life, enhance their sense of belongings and cohesion for the Group. The Group organizes a variety of 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, and so on. Besides, the Group holds two large-scale technical competitions in autumn and winter every year, and generous rewards are given to employees who have excellent performance, so as to promote learning and communications between employees, improve employees' business skills and foster their spirits of excelling at work.





Cultural and sports activities for employees





Technical competition sites





PURSUING EXCELLENCE IN QUALITY

Molten aluminum alloy is the major product of China Hongqiao, which is also the main material for manufacturing downstream aluminum products. Other products of China Hongqiao include aluminum deep-processing products such as coils, can stocks, aluminum foils, and so on. China Hongqiao possesses advanced manufacturing equipment, specialized production technology, strong R&D 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 and 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, 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 strengthening the development, supervision, assessment and management of suppliers.

Procurement of Raw Materials (except Raw Coal) and Supplies

All the bauxites used by the Group are purchased from overseas regions such as Guinea, Australia, Brazil and India. Except bauxites, the raw materials and supplies are generally procured by the Materials Supply Department appointed tender company in accordance with the materials consumption plan submitted by each production unit. The Group has formulated detailed procurement management system for all kinds of raw materials and supplies, covering 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 appointed by the procurement department, the suppliers meeting the requirements of the Group are then selected to participate in the tender. According to the Group's internal provisions, the procurement, production and related technical departments must cooperate with the tender company to participate in the tender process together. 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. At the same time, the principle of "comparing quality of same products, comparing price of same quality and comparing service of same price" should be adopted.

In order to reduce transportation costs and carbon emissions during transportation, the Group generally conducts procurement from nearby suppliers. If any problems are found during the inspection and using processes of raw materials and supplies, depending on the seriousness of the situation, the Group will take measures such as returning the goods, reducing purchase quantity or terminating the cooperation according to the feedback from the production departments. In addition, the Group usually reserves part of the quality deposit of the suppliers for important materials. If the supplier cancels or fails to perform the supply agreement, the quality deposit will be deducted for compensation.

Procurement of Raw Coal

The Group implements a bidding system for coal suppliers. To achieve the standardization of procurement procedures, specialization of procurement team and informatization of procurement management, the Group has formulated the "Coal Procurement Process", which covers market survey, utilization plan preparation, procurement methods, bidding requirements, and execution and implementation of contracts.

The Group's coal procurement employees are based in regions such as Shanxi, Hebei and Inner Mongolia. Following the proximity to suppliers principle, they conduct market research on coal production, prices, transportation costs and inventory level in their respective regions and report to the Group. 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 20th of each month) on the basis of inventory. To ensure the coal purchased is of high quality and low price, besides considering the price, the Group also evaluates factors such as the bidder's integrity, coal supply capacity, and so on. The Group also specifies the quality requirements, acceptance criteria and methods, delivery requirements, reject conditions and liability for breach of contract and other content in the procurement contracts.





The Group has established a Coal Inspection Department, which is responsible for coal inspection and acceptance work. Rules regulating incoming coal such as the “Administrative Rules of Coal Inspection Department”, “Methods for Reward and Punishment of Coal Inspectors’ Performance in the Inspection and Acceptance” and “Maintenance Requirements of Testing Equipment” have been formulated by the Group for the purpose of guiding the inspection of incoming coal, improving its stability and preventing supplier from doping or purchasing unqualified coal.

QUALITY MANAGEMENT

The Group strictly abides by the ISO9001 Quality Control System and 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 also enforced in our production. While “three unacceptances”, which comprise unacceptance of unconvincing reasons, unacceptance of unimproved measures and unacceptance of the irresponsibility of any personnel in charge, are put in place for quality incidents,

The Group not only has its own specified quality control division but also sets up a highly functional quality control center to conduct quality tracking for the whole production process from raw material to finished product. The Group also 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.

Equipment and Technical Support

The Group owns advanced production facilities and processes. Notably, all of the Group’s electrolytic aluminum production lines have applied large prebaked anodic aluminum electrolytic cells with the current higher than 400kA. As for aluminum deep-processing, the Group has a high-precision aluminum strip production line. The production line adopts the international advanced production process of direct smelting of aluminum ingot-hot continuous rolling-cold rolling-finishing, all of which introduced the world’s most advanced high-precision and highly automated rolling mills, with the technology and automatic control capacity reaching the international advanced level.



High-precision cold-rolled aluminum strip production line



In addition, the Group has equipped various high-performance instruments such as Instron's 59 Series Electronic Universal Testing Instruments, Thermo Fisher's ARL PERFORM'X4200 Sequential X-Ray Fluorescence Spectrometer, Switzerland ARL3460 Spectrometer, Germany OBLF QSN750-II Spectrometer, Malvern Laser Diffraction Particle Size Analyzer and Metallographic Sample Grinding and Polishing Machine, which provide a strong equipment and technical support to its quality analysis and testing.



Chemistry lab



USA Instron 59 series of electronic universal testing machine



Metallographic sample grinding and polishing machine

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 being input and leaving factory is traceable, in which composition testing, random sampling, labelling, packing, transportation and storage all comply with relevant standards and specifications.

To guarantee the health and safety of its products, the Group strictly conforms to the requirements of national, industrial and international standards such as Hygienic Standards for Use of Additives in Food Containers and Packaging Materials (GB 9685-2008) and National Food Safety Standard for Water-based Modified Epoxy Paint of the Inner Wall Cans (GB 11677-2012) to control the toxic and harmful contents contained in the packing products for food and drug and make sure the production environment and process fulfill the specific hygienic requirements.

The Group has formulated its internal control standards based on ISO9001, which are simultaneously adjusted and improved in accordance with the requirements of clients and the market demand. Besides, the Group has also established "Control Procedures of Non-Conforming Products" to stipulate detailed requirements in respect of identification, evaluation and disposal of raw materials, ancillary materials and non-conforming products which fail in initial and final testing procedures. In case that any problems are found in production process or clients' feedbacks, the Group will recall, evaluate or track the usage of such delivered products. As the Group insists on implementing internal standards that are higher than the national and industrial levels, the quality of its molten aluminum alloy can be maintained satisfactorily, which lays a sound foundation for its downstream clients in producing products with low energy consumption and high added value.



Innovation and Research and Development

Innovation and R&D are the major driving forces for an enterprise to reduce energy consumption, optimize production technique and enhance product quality. The Group attaches great importance to constructing innovative platform and promoting industry and academic collaboration. On one hand, through setting up R&D center and laboratory, engaging research personnel and purchasing advanced facilities, the Group actively invests resources into the research team. On the other hand, it continuously strengthens the partnership with scientific research institutions by initiating cooperations with University of Science and Technology Beijing, Northeastern University, Northeastern University Engineering & Research Institute Co., Ltd., Central South University and Soochow University in the form of industry and academic collaboration. In the future, the Group plans to cooperate with universities and colleges and research institutions to establish a high-end aluminum production and technology application research institute. The Group will absorb talent externally and also select outstanding staff members internally to provide funding and training so as to enlarge its talent pool for sustainable development.



R&D Center



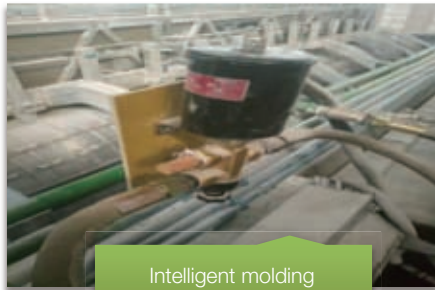
Cooperation agreement signed with University of Science and Technology Beijing

Cooperation agreement signed with Soochow University

The Group encourages its staff to work on technical improvements of production facilities and systems regarding safety, energy saving, efficiency enhancement and environmental protection. For technical renovation projects with promotional value, in addition to giving material rewards to responsible personnel, the Group will further organize relevant technical staff to study the projects, draw up plans and actively promote technological innovation projects suitable for the units. This Year, the Group implemented a total of 146 minor reforms, such as replacing manual technical transformation with X-ray fluorescence spectrometer, adding low-pressure device to precipitators, upgrading the gutter removal technique for gas storage tanks, transforming the transmission methods of dense phase conveying system, installing warning lights in the corridors of electrolysis workshop and implementing traffic control improvements. The Group completed 31 technical reforms and equipment optimizing projects in the Year, including intelligent molding system of electrolytic cell, configuration optimization of air compressor station, and so on.



Technical reform cases



Intelligent molding system of electrolytic cell



Configuration optimization of air compressor station



Enhancement of the straightening machine and waste shaping machine in the finishing workshop



Reform of the strip purging system at the exit of three cold rolling machines in the cold rolling workshop

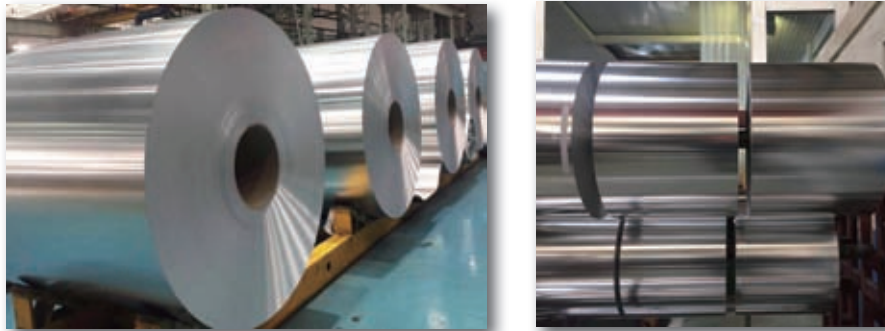
Achievements and progress

As one of the benchmarking enterprises, the Group took part in formulating several industrial standards, such as Unalloyed Aluminum Ingots for Remelting (GB/T 1196-2017) and Safety Guidance of Use of Vacuum Ladles (DB37/T2800-2016), and was awarded "The Most Competitive Aluminum Group in 2016-2017" by Chinese Academy of Social Sciences China Industries & Enterprises Competiveness Research Center, which highlights the unique competitive strengths and industrial leading position of the Group.

Can materials of 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, Pacific Can and so on.



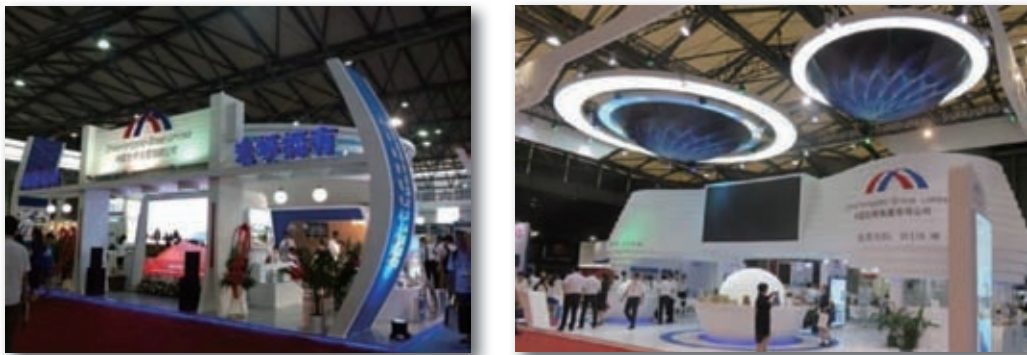
The Group also performs well in aluminum foil production. For example, breakthrough has been made in tackling key problems of billet pinholes of 8079 alloy thin conversion foil. The tests of foils of 0.0060mm rolling supplied to Luoyang Wanji and 0.0070mm rolling supplied to Jiangsu Daya show that the pinholes of those foils have reached the level of ultra-high precision standards.



Can material products and aluminum foil products

SALES AND SERVICES

The Group adopts the business model of production based on sales and provides various products with different specifications in accordance with the requirement 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.



Participating in the exhibition





In accordance with relevant laws and regulations such as Advertising Law of the PRC, Trademark Law of the PRC, Contract Law of the PRC and Law of the PRC on the Protection of Consumer Rights and Interests, the Group has formulated internal rules including “Working Rules of Sales Corporation” and “Corporate Customer Credit Management System”. Our sales staff shall enter into sales contracts with clients upon strictly reviewing the contract terms according to the market conditions, production capacity and inventory level. 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 delivering molten aluminum alloy products, the Group stores the products in a specially-made container and delivers them to downstream production units or clients according to the transportation routes or specific lanes designated by the local transportation departments. The molten aluminum vacuum ladle trucks applied by the Group have obtained all necessary licenses and are fully equipped with warning lights and a GPS navigation system to monitor the delivery process and ensure safety.

PRIVACY PROTECTION

The Group gives priority to information security to protect both internal privacy and client information. The Group has its own information center which is responsible for providing steady operation condition for each information system. The training division of the 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, the Group has formulated and implemented the “Administrative Rules for Security of Using Office Computers and Network”, which strictly prohibits unauthorized access to external devices and disclosure of confidential documents. Meanwhile, the Group has also promulgated regulations on data backup, anti-virus system management, central computer room management, user password setting, prevention of illegal data tampering and system hacking, system recovery strategies and other aspects to ensure 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 strictly supervising the bidding and purchasing procedures, carrying out secrecy education, signing confidentiality agreements with employees in specific positions, and with customers and suppliers.





ANTI-CORRUPTION PRACTICE

Honesty and obedience to law is the foundation of an enterprise, and also the basic ethics that every employee should practice. The Group always adopts the attitude of “zero tolerance” towards unlawful acts such as bribery, extortion, fraud and money laundering, abides by the relevant laws and regulations such as the Anti-Money Laundering Law of the PRC and the Criminal Law of the PRC and has set up the “Anti-fraud Control Procedures” and “Administrative Measures on Complaints and Reports” and other rules and regulations.

In order to supervise the implementation of anti-fraud measures, the Group has set up the Economic Supervision Department as a permanent body to combat fraud and co-ordinate and promote cross-sectoral anti-fraud efforts. The Economic Supervision Department organizes the management of each department to carry out the annual fraud risk assessment every year so as to reduce the chance of fraud. All departments hold 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 an anti-corruption meeting each year to mobilize and supervise the leaders of various departments to strengthen the building of a clean and honest organization. In addition, the Group further enhances its employees’ sense of incorruptibility through compiling education books for incorruptible practitioners and launching seminars on anti-corruption etc.

In view of the steps with the tendencies of corruption, such as bidding and purchasing, the Group has adopted strict monitoring measures to avoid such unlawful practices. 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 will also sign an agreement on anti-corruption with the bidders during the bidding process to prevent the acts like accepting rebates or engaging in private transactions.



Anti-corruption seminar



CARING FOR SOCIAL WELL-BEING

The successful development of China Hongqiao up to today shall be 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 benefit activities and encouraged employees to participate in these activities such as tree planting activity, sanitary activities inside and outside the factory and safety and public welfare activity, to contribute to the maintenance of a clean community environment.



Employees carrying out tree planting activity near the factory area



Safety and public welfare activity

The Group has set up independent and elite fire brigades. The brigades are able to provide safety and security to production units as well as emergency rescue services to local enterprises and communities, so as to promote the community harmony and stability.



Fire brigade



CHARITABLE DONATION

In addition to our devotion to community welfare, the Group also pays close attention to vulnerable groups and people in need, and gives hands to those in need continuously so as to help them overcome difficulties. During the Year, the Group has made a donation of RMB300,000 to Binzhou Aluminum Association to help 100 underprivileged college students so that they would not miss opportunities to complete their studies due to economic pressure.



Donations granted to needy students in Binzhou City

LOVE OF EMPLOYEES

While the Group is determined to give back to the community, our employees are always ready to sacrifice themselves for the good of others. During the Year, a post-80s employee of the Group's thermal power plant, donated hematopoietic stem cells to revitalize a 16-year-old leukemia patient in Jiangsu Province. The Group sent a condolence payment to such employee in recognition of his spirit of selfless dedication and delivery of hope through love.



The Red Cross presenting the "Certificate of Donating Hematopoietic Stem Cell Honor" to the Group's employee



Welcome ceremony for the Group's employee's resumption of work after successful donation of hematopoietic stem cell





DEDICATION WITHOUT BORDERS

To advocate for the economic strategy of “The Belt and Road” 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 contributing to local employment, medical treatment, taxation and infrastructure construction. Our efforts are highly praised by the local governments and the public.

The concept of “Creating win-wins for the benefit of the people” is upheld by The SMB Winning Consortium formed by the Group, Winning International Group of Singapore, Yantai Port Group and United Mining Supply (UMS) of Guinea. In the past few years, the Consortium has been helping Guinean people to improve their health care, education and living conditions through the construction of medical stations during the outbreak of Ebola, donations of livestock and daily necessities, reclamation of farmland, construction of schools, literacy training centers, water wells and roads, so as to bring vitality to the local economy.



Literacy training center



Hospital wards in the medical station



Well drilling project at Bokai District



Livestock donated by the Consortium for the Eid al-Adha (Festival of Sacrifice)





APPENDIX: ESG REPORTING GUIDE CONTENT INDEX

ESG Index	Summary	Chapters	Page No.
A. Environmental			
A1 Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Prevention and Control of Pollution	7
A2 Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials.	Energy Saving and Consumption Reduction	12
		Resource Recycling and Reusing	16
		Green Office	17
A3 The Environment and Natural Resources	General Disclosure Policies on minimizing the issuer's significant impact on the environment and natural resources.	Resource Recycling and Reusing	16
		Green Office	17
B. Social			
B1 Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Recruiting Talents	18
		Caring for Employees	23
B2 Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Health and Safety	22
B3 Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Talent Cultivation	19



ESG Index	Summary	Chapters	Page No.
B. Social			
B4 Labor Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	Recruiting Talents	18
B5 Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.	Supply Chain Management	27
B6 Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Quality Management	29
		Sales and Services	33
		Privacy Protection	34
B7 Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Anti-corruption Practice	35
B8 Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Community Welfare	36
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