



**中國大冶有色金屬礦業有限公司**

**China Daye Non-Ferrous Metals Mining Limited**

(Incorporated in Bermuda with limited liability)

**Stock Code : 00661**



**2016**

**ENVIRONMENTAL, SOCIAL  
AND GOVERNANCE REPORT**

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## INTRODUCTION

China Daye Non-Ferrous Metals Mining Limited (the “Company”) and its subsidiaries (collectively the “Group”) always attach importance to environmental, social and governance development. We believe that safe, green and sustainable development is the premise for the Group’s healthy existence, and plays a decisive role in fulfilling our social responsibilities and creating long-term value for our shareholders. While improving quality and efficiency to achieve financial excellence, the Group adheres to the spirit of sharing and sustainable development to build a harmonious enterprise.

This environmental, social and governance report is prepared by the Group in accordance with the Environmental, Social and Governance Reporting Guide set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Main Board).

## REPORTING PERIOD AND SCOPE OF THE REPORT

This report covers the period from 1 January 2016 to 31 December 2016 (the “Reporting Period”). Unless otherwise stated, this report consists mainly of the relevant operational information of two subsidiaries of the Company, namely Daye Non-ferrous Metals Co., Ltd. and Xinjiang Hui Xiang Yong Jin Mining Co., Ltd., during the Reporting Period.

## STAKEHOLDER ENGAGEMENT

Stakeholders refer to parties that have interests in the Group or would be affected by the decisions and activities of the Group, which mainly include shareholders, employees, suppliers, customers, regulators and the public. Stakeholders have participated in the assessment of importance by way of face-to-face interviews, annual general meetings, telephone interviews, etc.

## ENVIRONMENTAL

### 1. Environmental Protection

Adhering to the environmental policy of “compliance with laws and regulations, green development, energy conservation and emission reduction, and clean production”, the Group proactively promotes energy conservation, emission reduction and environmental control to build green mines and clean plants. During the Reporting Period, there was no material non-compliance with relevant environmental protection laws and regulations by the Group.

#### 1.1 Environmental Management

The Group strictly complies with the Environmental Protection Law of the People's Republic of China (《中華人民共和國環境保護法》), Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution (《中華人民共和國大氣污染防治法》) and Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste (《中華人民共和國固體廢物污染環境防治法》) and other relevant environmental protection laws and regulations, and has set up a well-established management system of environmental protection and complies with rules including the Environmental Protection Measures of Daye Nonferrous Metals Group Holding Co., Ltd. (《大冶有色金屬集團控股有限公司環境保護管理》).

- The Safety and Environmental Protection Department which is responsible for environmental management has been established to perform environmental protection functions under the guidance of the Chairman of the Group.
- Starting from daily supervision and management, as well as education and training on environmental protection, our environmental management standard has been continuously improved. Environmental control indicators, including recycling rate of industrial water from smelting process, and total sulphur dioxide emissions, have been set to improve the recycling rate of waste water and reduce pollutant emissions, with the aim of minimising environmental impact.
- Industrial waste water from ore processing and smelting process is recycled to reduce new water consumption and sewage emission; water samples at total sewage outfall are regularly taken and inspected, and are compared with local emission thresholds for the preparation of analysis reports.
- Advanced technological processes and equipment are adopted to reduce exhaust gas emissions from the ore processing and smelting processes and lower the amount of hazardous materials.
- Usable materials in the solid waste generated from the smelting process are collected by recycling companies for further recycling and reusing; while materials that are not reusable are handed over to professional operators for disposal; and tailings from ore processing are discharged into dedicated tailings pond for disposal.
- Measures including sound-proof houses, mufflers and shock absorbers are employed to minimise noise pollution of equipment; and all noisy equipment is placed away from the neighbourhood residential zone and staff quarters.
- The environmental impact assessment on newly-established projects is emphasised, in which potential environmental impact is assessed at the preliminary stage of project construction, and effective measures are taken to manage the environmental impact of projects throughout the construction period and operation period.
- Implementation of environmental management system is pushed forward, and scientific environmental protection measures are adopted under ISO14000 series standards to refine our environmental management.

### *Illustration*

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In 2016, the smelting plant of Daye Non-ferrous Metals Co., Ltd. met all applicable standards on exhaust gas emission, the integrated treatment of exhausted gases project commenced its operation by the end of September, which reduced the emission of sulphur dioxide. By the end of December 2016, the water balance project of smelting plant achieved prominent achievements, and waste water emission was reduced further.

### *Illustration*

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At Xinjiang Hui Xiang Yong Jin Mining Co., Ltd., waste water from ore processing and groundwater from mining was treated by sedimentation and was recycled for reuse in the production system. Instead of being discharged, sewage from office and domestic water consumption in the mine areas was used for greening or dedusting purposes after biochemical treatment.

## 1.2 *Environmental Protection Activities*

The Group actively fulfils its social responsibilities and promotes local environmental protection initiatives through various environmental protection activities. Land rehabilitation, planting and other environmental activities are carried out to improve the conditions of our plants, mining areas and the surrounding areas.

- Environmental impact arising from proposed projects is assessed, including the collection of opinions from the neighbouring residents on the potential environmental impact caused by the proposed projects, and the Group also publicises its environmental protection concept to address local residents' environmental concerns.
- Employees are imparted the knowledge of environmental laws and regulations, policies and standards, and are encouraged to innovate in environmental technologies and processes to further minimise environmental impact. The Group also publicises its environmental concept and policies to employees to enhance their environmental management standards.
- The Group communicates its environmental updates and policies through its environmental network platform, to prompt and handle unexpected problems in time.

## Illustration

Under its green and ecological mine construction strategy, Xinjiang Hui Xiang Yong Jin Mining Co., Ltd. accomplished the afforestation of 8,000 sq.m. and planted 200 trees in the mining area in 2016, in an effort to expand the construction of green and ecological mines and improve the ecological environment in the mining area.

## Illustration

On 5 June 2016, the World Environment Day, environmental protection training was provided by external environmental protection experts to middle and senior management and officers relating to environmental protection operations of Daye Non-ferrous Metals Co., Ltd., focusing on the newly revised Environmental Protection Law of the People's Republic of China (《中華人民共和國環境保護法》) and environmental responsibilities, etc. to enhance environmental protection compliance awareness of employees.



## 2. Use of Resources

### 2.1 Energy-efficient Control

The Group earnestly implements national and industrial energy conservation laws, regulations, standards and requirements, and strictly follows the relevant provisions including the Energy Conservation Law of the People's Republic of China (《中華人民共和國節約能源法》), Electricity Law of the People's Republic of China, (《中華人民共和國電力法》), Measures for the Supervision and Administration of Energy Measurement (《能源計量監督管理辦法》), Energy Conservation and Emission Reduction Plan during the "Thirteenth Five-Year Plan" Period (《節能減排「十三五」規劃》) and Regulations on Copper Smelting Industry (《銅冶煉行業規範條件》) to ensure its energy conservation practices are in compliance with relevant laws and regulations.

The Group enhances field management, strictly complies with regulations, optimises key technological processes, makes technological breakthrough in the production process, further improves energy-efficient technological transformation, and introduces advanced energy-saving technologies to reduce energy consumption and improve energy efficiency through such measures.

#### *Illustration*

In 2016, technological breakthrough was made and production process was optimised in response to the high consumption of natural gas by No. 4 refining furnace of the smelting plant of Daye Non-ferrous Metals Co., Ltd., and therefore greatly reduced the consumption of natural gas. Optimisation tests on copper electrolytic process was performed, while measures to improve production scheduling and reduce power consumption have been established. At Fengshan Mine of Daye Non-ferrous Metals Co., Ltd., production scheduling was rationalised to control the peak electrical load and manage underground ventilation time intervals by centralised ventilation, resulting in reduced power consumption.

#### *Illustration*

Daye Non-ferrous Metals Co., Ltd. has established an energy management system to enable control of whole-process energy management, which was accredited and certified to Energy Management System (ISO 50001: 2011) in February 2016 and passed the regulatory review by China Quality Certification Centre in December 2016.



## 2.2 Improving Resource Utilisation Rate

The exploration of mineral resources is conducted in strict compliance with the Mineral Resources Law of the People's Republic of China (《中華人民共和國礦產資源法》) and the Group strictly implements the Technical Management System of Mining Enterprises (《礦山企業技術管理制度》) and the Smelting Technology Management System (《冶化技術管理制度》). Focusing on the full utilisation and protection of resources in the development process, and taking initiatives including technological innovations and optimisation of mining, ore processing and smelting processes to improve the comprehensive utilisation rate of resources and facilitate energy saving and consumption reduction, the Group is able to maximise the utilisation value of resources.

- We improve the filling process, so as to speed up the mining recovery cycle, reduce costs, mining loss rate and dilution rate, and extend the service life of mines.
- We make technological breakthrough in ore processing, strengthen technical and production process discipline management and improve the ore grinding and flotation process, leading to a higher recovery rate of ore processing through such measures.
- We strengthen the comprehensive utilisation of resources in the smelting process, and make technological breakthrough and optimise the production process to improve the total recovery rate of copper, gold and silver from the smelting process.

## SOCIAL

### 1. Safe Development

The Group sticks to the safety approach of "safety foremost, prevention-dominated, people-oriented and comprehensive treatment", the life safety of employees is always regarded as our top priority. We strictly comply with national safety laws and regulations and improve our occupational health and safety management system, so as to achieve healthy, safe and harmonious development of the enterprise. During the Reporting Period, there was no material violation of relevant health and safety laws and regulations by the Group.

#### 1.1 Safety Management System

In strict compliance with the Production Safety Law of the People's Republic of China (《中華人民共和國安全生產法》) and other laws and regulations on production safety, the Group has established a safety management system with reference to the actual conditions.

- The Production Safety Committee has been established to oversee occupational health and safety matters. The Chairman of the Group takes the primary responsibility for production safety and the management members at various levels take safety responsibility within their respective scope of duties, while each employee should be responsible for his own safety and reminding workmates of safety issues.
- We conduct regular assessments to ensure the fulfilment of our goal of zero safety incidents and various process control indicators. All employees are required to participate in safety training and examinations to acquire appropriate safety management knowledge and skills.
- Preparatory and emergency response measures have been developed for unexpected contingencies and various emergencies in production process. Emergency response knowledge training and drills are organised regularly. All safety incidents are required to be reported to local government departments promptly.



## 1.2 Safe Operation

The Group maintains effective operation of its occupational health and safety management system. We effectively manage dangerous and harmful factors in the production process to eliminate or minimise safety risks. We strive to provide a safe workplace for all employees to protect them against occupational injuries. During the Reporting Period, there was no fatal workplace accidents of the Group.

### 1.2.1 Production Safety

- Through regular review of the occupational health and safety management system, the nonconformities identified are rectified through timely measures to ensure effective system operation.
- Through hazard source identification and risk evaluation, significant safety risks are addressed as a priority. Relevant control measures are taken to ensure various types of safety risks are well managed.
- All employees are trained on safety knowledge annually, and publicity and education activities including safety knowledge contests and accident warning education are held.
- The Group's safety department organises regular comprehensive safety inspections. Special safety inspections on equipment, dangerous chemicals, road traffic and fire control, etc. are performed by relevant units within their respective scope of duties, and timely corrective measures are taken to prevent and minimise accidents.
- Employees are equipped with safety-conformant labour protection tools and supplies, and are provided with regular occupational health examinations and work-related injury insurance. Noise, dust and toxic substances are controlled by ventilation, dust collection, air purification and other measures.
- For projects under construction, safety and occupational disease control facilities are designed, constructed and put in operation simultaneously with the projects in strict accordance with national safety standards and requirements, aiming to provide employees with a safe and sound working environment.
- Necessary fund for ensuring safe production conditions is injected and is used in hidden danger management, personal protection supplies, as well as promotion and application of new technologies, new standards, new process and new equipment, etc.

## Illustration

On 8 December 2016, Daye Non-ferrous Metals Co., Ltd. passed the qualification renewal review on its occupational health and safety management system by China Quality Certification Centre.

## Illustration

On 5 July 2016, Daye Non-ferrous Metals Co., Ltd. held a debate contest on the topic of "Strengthening safe development approach and improving safety awareness". The contest allowed employees to correctly recognise and understand the importance of production safety on the existence and development of an enterprise, and raised their safety awareness as well.



## Illustration

On 25 January 2016, the Occupational Disease and Hazard Assessment Report on Ore Processing Expansion Project (《選礦擴能工程職業病危害預評價報告》) of Tongshankou Mine of Daye Non-ferrous Metals Co., Ltd. passed the review by the local production safety supervision and administration bureau, confirming that the project has met the relevant national requirements under the Administrative Measures on "Three-Simultaneous" Occupational Disease Control Facilities in Construction Projects (《建設項目職業病防護設施「三同時」監督管理辦法》).

## Illustration

On 24 June 2016, Tongshankou Mine of Daye Non-ferrous Metals Co., Ltd. carried out a flood prevention drill to enhance emergency response and management capacities of the flood control team.



### 1.2.2 Traffic Safety

We strictly implement the motor vehicle driver review system, and provide weekly safety training courses to drivers. For motor vehicles carrying dangerous chemicals, GPS dynamic positioning system is used to enable real-time monitoring and standardise the management of transport vehicles on road.

### 1.2.3 Contractor Safety

Briefings and trainings on safety issues must be provided before relevant personnel of contractors enter the workplace, to prevent them from occupational injuries.

## 2. Employment Relationship and Labour Standards

In strict compliance with laws, regulations and policies on human resources and social security, the Group has developed a set of rules on human resources management to ensure compliance in employment practices, broaden career paths and promotion routes, offer employees with various benefit packages, develop a diversified income distribution system and provide multi-level training programmes.

### 2.1 Employment

The Group has entered into labour contracts with employees to protect their legitimate rights and interests and promote harmonious and stable labour relations. During the Reporting Period, the Group was not involved in any material non-compliance with laws and regulations with regards to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and forced labour.

- A standard working hours system has been adopted and paid leaves are reasonably arranged for employees.
- Labour protection supplies are distributed as required, together with regular medical examinations and rehabilitation for workers who are exposed to toxic and hazardous substances.
- In strict accordance with the Labour Law of the People's Republic of China (《中華人民共和國勞動法》) and the Labour Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》), the Group's labour contract signing ratio has reached 100%.
- Child labour and forced labour are prohibited.
- Anti-discrimination: all employees are treated equally regardless of nationality, race, gender and religion.

### 2.2 Caring for Employees

The Group extends cares to employees by organising a diversity of cultural and sports activities and occupational disease inspection and protection programmes for employees to promote their sense of happiness and loyalty.

- We offer aids to employees in need to help them overcome difficulties in life. The "Mutual Help" programme is in place to help specific employees in need, and holiday visits are paid to junior level staff and model workers, with an aim to share a warm family feeling among employees.
- Activity facilities including football, basketball, tennis and badminton courts are built, and cultural and sports activities such as basketball, badminton, chess and poker competitions, "1st May" labour rewards party and "1st October" National Day party are held regularly.

### 2.3 Remunerations and Incentives

Employee compensations are determined based on position-based value under the principle of fairness and impartiality, and are subject to adjustment according to corporate business results and individual performance assessment.

- A payroll management system with compensations determined based on operational results and individual contribution to profits has been established.
- On the basis of a post-specific performance-linked salary mechanism, the diversified income distribution system takes into consideration the position-base salary, piecework salary and performance-linked salary, among other distribution methods.
- Our income distribution policy continues to prioritise employees at junior and technical positions with an aim to continuously improve their income.

## 2.4 Employee Development

The Group strives to establish a fair and transparent talent selection mechanism and smooth promotion routes as well as a multi-level and categorised staff training system to improve the professional competence and skills of employees on an ongoing basis.

- We always pay respect to talents, and focus on the skills and competence of candidates.
- Career development and promotion routes are optimised constantly.
- Innovative training methods are combined with a full range of post-specific training activities to enhance the professional competence and operating skills of employees.

### Illustration

In June 2016, 72 employees of Daye Non-ferrous Metals Co., Ltd. participated in a safety culture workshop lectured by well-known experts in corporate safety, laying a solid foundation for comprehensive safety culture construction across the Group.



## 3. Supply Chain Management

The Group follows the procurement principle of fairness and impartiality, "premium price for premium quality" and "strategic cooperation" to select qualified suppliers according to the prescribed procedures. The Group carries out regular quality analysis on the raw materials purchased from suppliers, and have established an information database for the raw materials offered by suppliers and credit records to constantly strengthen and optimise our supply chain management. For the raw materials provided by suppliers, the Group has established strict criteria for copper raw materials, especially for those containing environmentally sensitive pollutants. While unqualified raw materials are precluded from our plants, we work with environmental authorities for strict investigation and punishment, and blacklist and eliminate unqualified suppliers to optimise the supplier pool on an on-going basis.

- We select domestic and overseas premium copper mines, domestic leading smelters and traders with stable supply and proven quality as our strategic partners, seeking a balanced introduction of raw materials to satisfy the smelting and production needs. Where our purchase policy permits, average suppliers are also provided with the opportunity to become our strategic partners through guided cooperation.
- Through regular credit evaluation, suppliers are assessed by the purchasing department with respect to contract performance, quality, integrity and other indicators, with strict entry assessment and approval procedures for new suppliers, and suppliers are managed under a dynamic management and survival-of-the-fittest model to improve the supplier pool continuously.
- Clauses on environmental and social risks are incorporated into contracts to specify that suppliers shall meet national environmental requirements while effectively fulfilling their corporate social responsibilities in the production and transportation process.

#### 4. Product Responsibility

Upholding its quality policy which focuses on “first-class products, services in good faith, management excellence and market development”, the Group takes ISO9000 series standards as the guide in its quality management practices. The Group strictly complies with relevant laws and regulations including the Product Quality Law of the People’s Republic of China (《中華人民共和國產品質量法》) and the Metrology Law of the People’s Republic of China (《中華人民共和國計量法》) in our production process. All our products meet the applicable national and industrial product quality standards. Our product quality passing rate is 100% in various product quality checks conducted by national, provincial and municipal government authorities. During the Reporting Period, no penalty was imposed on the Group due to violation of laws and regulations on product quality and technical supervision.

- We steadily improve the quality management system, optimise quality management procedures and strengthen controls in system implementation, to ensure customer needs are satisfied through such measures.
- We focus on our customers and strive to protect their legal interests, while safeguarding and ensuring the proper usage of their information.
- We actively communicate with our customers and visit them regularly in order to provide them with quality products.

#### *Illustration*

Four major products namely copper cathodes, gold, silver and sulphuric acid of Daye Non-ferrous Metals Co., Ltd. have been included in the list of Famous Branded Products of Hubei Province for years.



## 5. Anti-corruption

The Group strictly abides by the anti-corruption provisions under the Criminal Law of the People's Republic of China (《中華人民共和國刑法》). Taking laws and regulations as the criterion in its business operations, the Group earnestly practices the concept of "good faith and compliance, thrift and diligence, honesty and integrity", and continuously optimises its corporate governance structure to improve corporate governance according to the laws. During the Reporting Period, the Group strictly complied with the laws and regulations against bribery, extortion, fraud and money laundering, and was not involved in any corruption, bribery and other violations of relevant laws and regulations.

- The Group complies with the systems including the Reward and Punishment Management System for Employees (《公司員工獎懲管理》) and the Benefit Package and Business Expense Management System for Executives (《企業負責人履職待遇、業務支出管理》), and supervises and examines the implementation of these systems to promote compliance and integrity in the performance of duties by employees.
- Integrity risks in relation to key operations, activities and processes including open-tender purchases, project construction, capital management, product sales and trade management are identified and classified, while preventive measures and officers in charge are defined to enable position-based anti-corruption under an integrity risk prevention and control system.
- Anti-corruption and anti-bribery education programmes are launched to raise the awareness of integrity among employees.
- Smooth reporting channels are in place by setting up complaint hotline and e-mail box and entertaining incoming letters and visits, and all reported cases via correspondence, e-mail, fax, telephone and visit are handled pursuant to rules.

## 6. Community Investment

The Group attaches importance to the implementation of social responsibilities, advocates the concepts of patriotism, integrity, law-abidingness, innovation, amiability and responsibility, and instils the core values of "responsibility, loyalty, learning and progressing" in employees to upgrade their moral accomplishment. We actively participate in welfare, charity and public undertakings to contribute to the growth of surrounding communities. With an increasing sense of social responsibilities, numerous employees voluntarily participate in public welfare and charity undertakings and convey their cares and dedication to the community.

### *Illustration*

At Daye Non-ferrous Metals Co., Ltd., a "520-Volunteer Service Team" has been set up under the labour union and extended active presence in charitable services and public welfare activities. During the period from August to October 2016, the team took a patrol of over 60 days for comprehensive improvement of urban appearance and environment with the aim of building Huangshi into a national civilised and clean city. The volunteers also proactively participated in community development, drawing upon their expertise to offer voluntary services in family planning counselling, greening, sanitary supervision and public lighting, etc. and demonstrating their selfless dedication.



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