



XIWANG SPECIAL STEEL COMPANY LIMITED 西王特鋼有限公司

(incorporated in Hong Kong with limited liability)

Stock Code: 1266

2020

Environmental, Social and
Governance Report



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ABOUT THIS REPORT

Overview

Xiwang Special Steel Company Limited (the “**Company**”) together with its subsidiaries (the “**Group**”) is pleased to present this Environmental, Social and Governance Report (the “**Report**”) for the period from 1 January 2020 to 31 December 2020 to provide an overview of the Group’s management on significant issues affecting the operation, and the performance of the Group in terms of environmental and social aspects. The Report also sets out the principles adopted by Xiwang Special Steel Company Limited and its subsidiaries in fulfilling social responsibility and the performance of the work, including the topics about sustainable development of economy, environment and society that may be of concerns of the important stakeholders.

Basis of Compilation

This Report is compiled based on “Environmental, Social and Governance Reporting Guide” in Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange. The contents disclosed in this Report are in compliance with the disclosure requirements of “Comply or Explain” in the “Environmental, Social and Governance Reporting Guide” under Appendix 27 of the Listing Rules. All information herein reflects the performance of the Group in respect of environmental management, corporate social responsibility and corporate governance from 1 January 2020 to 31 December 2020, which is available for public use to enhance transparency and increase the confidence and understanding of the stakeholders toward the Group.

Reporting boundary

The Company is a company incorporated in Hong Kong and its ordinary shares are listed on The Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”). The Company is a leading high-end special steel manufacturer located in Shandong Province of the People’s Republic of China (the “**PRC**” or “**China**”). The Group’s production base is located in Xiwang Industrial Area, Zouping, Shandong Province of China. The Group operates an integrated production process from iron smelting and steel smelting to secondary metallurgy, die casting, continuous casting and steel rolling. The Group’s products consist of ordinary steel that is primarily used in buildings and infrastructures, as well as special steel that is used in high-speed rail, automobile, vessels, wind power, bearing and petrochemical, machinery and equipment sectors.

This Report primarily covers the production and sale of ordinary steel products business, the production and sale of special steel products business, the trading of commodities (such as iron ore dust, pellets, steel billets and coke) business and the sale of by-products (such as steel slag, steam and electricity) business owned by the Group during the period from 1 January 2020 to 31 December 2020.

Data Source

Unless with special explanation, all data in this report are collected by the Group, which are reviewed and approved by the board of directors of the Company (the “**Board**”). Sources of the non-financial data contained in this report include the internal statistical data of the Group and relevant public data, etc. which were collected based on the original records and report about the actual operation of the Group. The financial data is derived from the 2020 annual report of the Company, which has already been audited by HLB Hodgson Impey Cheng Limited. The Group guarantees that there are no false records, misleading statements or omissions to a material extent in this Report. Unless otherwise specified, the amount data in this report are all denominated in RMB.

Reporting Principles

In the preparation of this Report, we have summarised the performance of the Group in terms of corporate social responsibility on the basis of the reporting principles of materiality, quantitative, balance and consistency. Please refer to the table below for our understanding about and responses to these reporting principles:

Reporting principles	Definitions	Our responses
Materiality	It is the threshold at which the Board determines that ESG issues become sufficiently important to investors and other stakeholders that they should be reported.	During the preparation of this report, important stakeholders have been identified, and important ESG issues have been determined through materiality assessment; We assessed the materiality of the ESG issues through communication with internal and external stakeholders and we also determine the priority of the issues.
Quantitative	The relevant historical data of KPIs need to be measurable. An issuer should set targets (which may be actual numerical figures or directional, forward-looking statements) to reduce a particular impact. In this way the effectiveness of ESG policies and management systems can be evaluated and validated. Quantitative information should be accompanied by a narrative, explaining its purpose, impacts, and giving comparative data where appropriate.	This Report extracts all data from relevant documents or data of the Group, and discloses relevant standards and methods used for the calculation of emissions and energy consumption data.
Balance	The ESG report should provide an unbiased picture of the issuer's performance. The report should avoid selections, omissions, or presentation formats that may inappropriately influence a decision or judgment by the report reader.	The Report discloses data in an objective manner, as far as reasonable and practicable, to ensure that readers can make reasonable and objective assessment.
Consistency	The issuer should use consistent methodologies to allow for meaningful comparisons of ESG data over time.	Unless otherwise specified, the preparation method of this report is same as that of the previous year. This report uses consistent data statistical methods and no major changes have occurred.

Publication and Contact Information

This report is published on the websites of the Company (<http://www.xiwangsteel.com>) and HKEXnews of the Hong Kong Stock Exchange (<http://www.hkexnews.hk>) in an electronic format. This report is prepared in both English and Chinese versions. Should there be any discrepancy between the English and the Chinese versions, the Chinese version shall prevail. The Group welcomes your feedback on this Report for our sustainability initiatives. Please contact us by email at wangjianxiang@xiwang.com.cn.

ABOUT THE COMPANY

Xiwang Special Steel Company Limited (the “**Company**”) was founded in December 2003, as a controlled subsidiary of Xiwang Group Company Limited (the “**Xiwang Group**”). The Company was listed on the main board of the Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”) in February 2012. In January 2014, it was accredited by the Ministry of Industry and Information Technology as a corporation that meets the industry standards. The annual steel smelting and rolling capacity of the Company’s design are 3,300,000 tons and 3,000,000 tons respectively, and its major products include various high-quality steel rods and wires, such as high-quality carbon steel, structural alloy steel, pinion steel, spring steel and ball bearing steel, high-strength building materials, and various types of special steel ingots and forged bars for high-end uses.

The Company maintains its transformation strategy of “from general steel to special steel, then to steel products and to products for public use”. It has cooperated with the Institute of Metal Research of Chinese Academy of Sciences to establish a clean and intelligent high-end special steel production demonstration line. The production facilities and processes are gradually becoming more stable and mature, and the steel production capacity is improving steadily. More than 80 types of high-end special steel products are placed in the market now and are highly recognized by high-end customers in the PRC and across Asia.

BOARD STATEMENT

Overview of ESG Issues

The Group regards social and environmental responsibilities as the core values in its business operations. The Group aims to be an environmentally friendly enterprise, with the goal of creating long-term value for all stakeholders in the society, maintaining its high-quality services and operating standards and having a profound and positive impact on the communities in which the Group operates. The Group actively manages the impact of its operations on the environment and society and strive to fulfil its environmental and social responsibilities. Furthermore, the Group will improve the sustainability and transparency of the Group and create a green and sustainable future for the next generation.

ESG Management approach and strategy

The Board has set up a committee to put forward suggestions regarding the Company’s long-term development plan, sustainable development policies, and guide the stakeholder communication. The committee also reviews the policies, management framework and day-to-day operations in respect of environmental and social responsibilities and sustainable development at least every half a year. In addition, the committee puts forward suggestions to the Board on relevant work.

The Company implements effective management of social responsibility. To carry out and drive forward the Company’s social responsibility work, the Company has established a system for promoting social responsibility with management participation and coordination of various departments. This Report sets out the approach, strategy, priorities and objectives of the Company’s management on environmental, social and governance (the “**ESG**”) relating to its business, and measures and systems adopted by the Company to implement and monitor the ESG strategy. As the board of the Company (the “**Board**”) is responsible for assessing and determining the Company’s risks related to ESG, and ensuring that proper ESG risk management and internal control systems are in place, the Board, with the confirmation from the management, considers that the ESG risk management and internal control systems are effective.

Review of progress made against relevant goals and targets

The Board regularly evaluates, identifies and manages sustainability risks and seeks to create long-term value for our stakeholders by identifying potential opportunities by exploring potential opportunities in compliance with regulatory requirements and industry practices. In addition, the Board regularly reviews the implementation of ESG objectives and adjusts the objectives as appropriate and practicable to ensure that the impact of the corporate development on the environment and society is minimised.

ENGAGEMENT OF STAKEHOLDERS

The Company considers that stakeholders of the Company include government, shareholders and investors, employees, customers, suppliers, peers and industry associations and community. Expectations and opinions from the Company's stakeholders are important and valuable. The Company welcomes the participation of its stakeholders through different channels, such as publication of annual reports, official website, general meetings, training and seminars, feedback forms and industry conference. By engaging various stakeholders, the Company understands their expectations and concerns so as to facilitate the formulation of strategies for sustainable development.

The following table provides an overview of the Group's key stakeholders, and various platforms and methods of communication are used to reach, listen and respond.

Stakeholders	Communication method/channel	Key concerns	Action plans
Government	<ul style="list-style-type: none"> - Participate in discussion in the formulation process of relevant policies and industry standards - Make calls and hold meetings when necessary 	<ul style="list-style-type: none"> - Compliance with regulatory requirements, including policies related to COVID-19 - Ensure production safety - Support local economic and industrial development, and promote employment - Create jobs and fulfilling tax obligations in accordance with the law 	<ul style="list-style-type: none"> - Monitor law and regulation updates, and strictly comply with all regulatory requirements - Follow the epidemic prevention requirements of the government, and protect the safety and health of employees - Strengthen safety management and ensure that the production processes comply with safety standards - Create job opportunities - File tax returns timely and pay taxes in a full and timely manner

Stakeholders	Communication method/channel	Key concerns	Action plans
Shareholders and investors	- General meetings and other meetings	- Business strategies and financial results	- Convene general meetings regularly, and actively listen to the views and needs of shareholders and investors
	- Publish annual/interim reports, announcements and circulars	- Information disclosures and risk control	- Release operating data and financial results in due course
			- Assess corporate risks regularly and formulate responding plan
Employees	- Training and orientation	- Reasonable salary and welfare	- Work out competitive remuneration system and provide fair career development path
	- Regular performance appraisal	- Employee promotion and development	- Provide regular vocational training and establish a platform for the career development of employees
	- Employee caring activities	- Care for employees	- Listen to employees' feedbacks through various channels
		- Occupational health and safety	- Arrange specific operational training
Customers	- Company website	- Safety and quality of products	- Strictly control products' outgoing indicators
	- Direct communication with customers	- Delivery and after sales service	- Enhance the quality of pre-sales and after-sales services
	- Customers feedbacks and complaints		- Immediately follow up and handle customer complaints and improve product and service quality

Stakeholders	Communication method/channel	Key concerns	Action plans
Suppliers	<ul style="list-style-type: none"> - Communication meetings and telephone discussion - On-site inspection 	<ul style="list-style-type: none"> - Environmental protection, qualification and scale - Fair and transparent procurement process - Good relationship with the Group - Supply chain management, and market supply and demand 	<ul style="list-style-type: none"> - Establish open and transparent tendering system, and provide equal competition opportunity to suppliers - Build a platform for communication with suppliers, and facilitate the cooperative development with suppliers in a proactive manner - Check on the qualification of suppliers regularly, and monitor market supply and demand closely
Peers and industry associations	<ul style="list-style-type: none"> - Industry conferences - Site visits 	<ul style="list-style-type: none"> - Experience sharing - Cooperation - Fair competition 	<ul style="list-style-type: none"> - Actively attend industry conference and organise site visits
Community	<ul style="list-style-type: none"> - Media publicity and reports - Participate in community welfare activities 	<ul style="list-style-type: none"> - Corporate social responsibility, support social welfare - Provide employment opportunity 	<ul style="list-style-type: none"> - Actively participate in community welfare activities - Create job opportunities

HUMAN RESOURCES

I. Employment and Labor Standards

A. Employees

The Company upholds the business philosophy of “Health, Integrity, Hardship and Happiness”, stresses on a people-oriented and harmonious development, and pays heed to maintaining and safeguarding employees’ rights and interests. The Company abides by the employees’ standards, providing them with a pleasant work environment, competitive salary and benefits and a reasonable promotion path, which nurture its healthy, pragmatic, innovative, hardworking and enterprising staff members.

The Company fully recognizes the importance of talents. In order to facilitate the transformation and advancement of its products, the Company specifically hires senior metallurgical technicians from large steel enterprises to set up product research and development teams and enhance its technological R&D capabilities. At the same time, the Company visits major colleges and universities to recruit talents in specific disciplines, such as metallurgical materials and metal machinery and adopts a college-enterprise cooperation model, which strengthens its foundation, broadens its market, upgrades the overall education levels of staff members, and provides quality human resources for further transformation and upgrade of the Company.

In order to nurture its own talents team, the Company constantly developed trainings for the improvement of foundation management, actively drove forward skills assessment of key technical positions, and finally assessed 31 assistant technicians and 24 technicians in 2020 on the basis of the assessment in the previous year. The Company worked with the Institute of Metal Research of Chinese Academy of Sciences to carry out the Chinese Academy of Sciences – Xiwang Special Steel Master of Engineering Training Course, nurturing 8 post-graduates on-the-job. The Company selected its talents and built a talent pool with four levels, selecting 226 reserve talents and creating a team of reserve talents who are loyal, passionate, and innovative.

An effective salary incentive mechanism has been established to stabilize and retain the talents needed by the Company, allowing employees to share the profits from the development of the Company. In accordance with the relevant national and regional laws and regulations and the relevant management systems of the Company, a salary management mechanism based on job performance with various means of allocations was established to guarantee the realization of employees’ value.

The Company takes “efficiency” as priority, and conducts assessments based on the profit margin etc. All employees contribute to the Company’s profitability performance. The key performance indicators assessing the performance of production staff are the production volume, quality and safety of products, while that of other functional management departments are the individual key performance indicators, capabilities, behavior and attitudes. At the same time, salaries of all staff are linked to the operating profits of the Company so as to promote employees’ awareness of increasing efficiency and creating income, sharing corporate profits and benefits.

In accordance with the principle of “openness, fairness, and impartiality”, the Company has formulated “Regulations for Promotion of Junior Management Personnel”. To select junior management personnel, comprehensive evaluation is conducted in various ways such as open position competition, equal competition, recommendation by seniors, and self-nomination. A clear and smooth promotion path is in place, which is subject to the supervision of all staff members and is incentive-oriented, to encourage career advancement.

The Company strictly implements the “Labor Law of the People’s Republic of China”, the “Labor Contract Law of the People’s Republic of China”, the “Social Insurance Law of the People’s Republic of China”, the “Law of the People’s Republic of China on the Protection of Rights and Interests of Women” and other national laws and regulations, and has established relevant measures, such as “Employees Recruitment Management System”, “Remuneration Management System”, “Employees Leave Management Measures”, “Social Security Management System” and “Employment Contract Management Measures”. The Company standardizes the process of recruitment, appointment, selection, assessment and leave-taking of employees through various management policies.

The Company strictly follows the requirements of relevant laws, regulations and policies on national and local social insurance by paying the social insurance contributions for all staff in full and on time to protect their rights and interests. As of 31 December 2020, the Company has a headcount of 3,543, including 134 management personnel and 477 technicians. In terms of education level, 1,158 employees are tertiary educated or above.

As shown from the staff composition, the Company’s staff tend to be younger, with higher education level, are engaged for a length of service of 3 years or above, possess certain particular work experience, and boast strong creativity and productivity.

Turnover rate

The staff turnover number and percentage in 2020:

	Number of employees	Percentage
Gender profile		
Male	95	96.9%
Female	3	3.1%
Age profile		
Below 35	58	59.2%
36-50	40	40.8%
Education level		
Below technical school	73	74.5%
Tertiary or above	25	25.5%
Length of service		
Less than 3 years	59	60.2%
3-5 years	32	32.7%
More than 5 years	7	7.1%
By district of domicile		
In Zouping	75	76.5%
Outside Zouping	23	23.5%
Total	98	100%

B. Health & Safety

In order to better manage occupational safety and health works, the Company strictly implements the Production Safety Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases, the Fire Control Law of the People's Republic of China, the Regulations of Shandong Province on the Obligations of the Safety Production Main Body of Production and Operation Entities, Production Safety Regulations of Shandong Province and other national or local laws and regulations.

There were no incidents of large scale in safety production and there were no new cases of occupational illness. The occupational illness reporting rate, on-site detection and evaluation rate of occupational hazard factors and employees' occupational health checkup rate were 100%. A series of activities including risks rating control, examination and management of hidden hazards, safety emergency drills, safety education for all staff, monitoring and management of key hazards, contest on safety knowledge and activities on "learning about the procedures and avoiding three violations" were continuously held to manage and eliminate hidden hazards of production safety, which have achieved good results and provided strong back up for the realization of business objectives.

To avoid the incidence of occupational illness, in terms of system, a sound occupational health and safety management system is in place, occupational health safety management system certification has been awarded, and secondary safety standardization review and dual prevention system assessment has been passed. In respect of the process, each staff member is regularly provided with a series of protective equipments including uniform, shoes, helmet, mask and gloves. At the same time, workshops are furnished with necessary emergency medicine. In respect of the prevention, the Company held an annual occupational health body check and regular training on occupational health to continuously enhance the self-protecting capability and safety awareness of staff members against occupational hazards.



Comprehensive emergency drill for gas tanks



Promotion of safety knowledge

The Safety Division of the Company has signed the “Responsibility Letter of Safe Production Objectives Management” which covers every aspect of operations and every staff member of the Company, in order to optimize the safe production accountability system and enhance the strength of implementation of responsibility, which are the keys to safety management. The Company further ascertained the responsibility of main bodies for safe production at each level and strictly upheld the principles of “the head of a production unit is the first responsible person of safe production” and “responsibility falls on the person-in-charge” to strengthen the responsibility assumed by main bodies for safe production at each level. The Company has guided and supervised various departments to continuously carry out special examinations on safe production and occupational health according to their respective actual production situations. Safety inspection and supervision of production plants were conducted daily, with a total of 76 safety supervision orders issued and more than 1,160 hidden safety hazards rectified.

Employees Health and Safety Data Indicators	2020	2019
Number of trainees in safety production	3,543	3,506
Special training for all staff	3,150	2,650
Number of job-related deaths	0	0
Proportion of job-related deaths to total workforce (%)	0	0
Lost work days as a result of job-related injuries	0	0

C. Development & Training

Development and training is one of the key factors to the Company’s success. In 2020, to satisfy the development needs of staff at various levels of the talent team, the Company constantly carried out trainings for the improvement of foundation management, actively drove forward skills assessment of key technical positions on the basis of 2019 review. Through implementation of a management model comprising dynamic tracking and year-end elimination on the assessed 300-technician team, 31 assistant technicians, 24 technicians and 8 professional technician leaders were finally assessed in 2020.



Mid-term examination for professional technician leaders



Opening ceremony of the professional technical training course for special material plants

Given the impacts of the epidemic, the Company focused on departmental trainings in 2020. The Company planned to organize 158 sessions and actually organized 150 sessions of training involving all departments throughout the year, with a completion rate of 95% and 22,935 participants in total (8 sessions of training were unable to be conducted as planned and were cancelled due to the epidemic). The 489 course hours of training covered operation and management, safety management, environmental management, job skills, equipment management, process technology, etc. In order to thoroughly implement the work requirement of “establishing a talent team” of the group company, the Company encouraged staff to study professional knowledge and inherit the technician spirit. Xiwang Group cooperated with two vocational and technical colleges, namely Binzhou Technical College (濱州市技術學院) with which it held the “Golden Blue Collar Training Course” and Luzhong Vocational College (魯中職業學院合作) with which it organized the “New Enterprise Apprenticeship System” training. 7 senior electricians, 38 electricians, 17 senior welders and 36 welders were cultivated to become golden blue collar workers; and 82 new electrician apprentices and 68 new welder apprentices were cultivated. A technician team with solid theory and strong skills has been formed.



Opening ceremony of the Golden Blue Collar Training Course



Opening ceremony of the New Enterprise Apprenticeship training course

For training of new staff, the Company constantly carried out apprentice activities, encouraging outstanding staff to play a role in mentoring. During probation, one-to-one assistance was provided to new staff in terms of safety, skills, life, and other aspects. When becoming a regular employee, staff would be assessed in respect of their knowledge that should have been known and understood, practice skills, capability and attitude. During the year, 209 employees passed the assessment by way of mentor grading in teaching, which effectively improved the retention rate of new staff after being employed.



Skill competition among technicians



One mentor to one apprentice

Launching “Learning Course for Management”. The Company constantly promoted the construction of “Learning Organization”, implemented the strategic deployment of “Producing Refined and Special Steel”, and carried out 39 hours of learning course for management, in which the management team taught and communicated about the current management situation, thus effectively enhanced horizontal learning and communication in the organization as well as the judgement, decision-making, and appealing of the management team, contributing to the high-quality development of the Company.

With the goal of enhancing the management capability and skills of the group leaders in Base Class, the course “**Training Course for Group Leaders in Gold Class**” closely integrated with the actual demand of production management. The Company carefully selected economic and management courses and organized 32 hours of courses on management practice, quality management, safety knowledge, performance motivation, communication and so on for the students. The lecturers are all experienced in company management practice and the training course is easy to understand, which effectively facilitates the students to apply what they have learned into practice. During the year, 58 students successfully completed the course in total, who filled up various units and groups and thus enhanced the vitality of the enterprise.

“**Training for CPC Membership Applicants**” was carried out in two sessions, including group training and “One Lecture Per Month”. Training was conducted by way of lecture, watching educational videos, voluntary labor and so on, which guides CPC Membership Applicants to correct their motives.

For external training, the Company worked with the Institute of Metal Research of Chinese Academy of Sciences to carry out “Chinese Academy of Sciences – Xiwang Special Steel Master of Engineering Training Course”, nurturing 8 post-graduates of master’s degree on-the-job who successfully completed the final dissertation oral defense and obtained a master’s degree in engineering from the University of Science and Technology of China. As the first batch of post-graduates of master’s degree jointly cultivated by Xiwang Special Steel and Chinese Academy of Sciences, these post-graduates would contribute their strength to the high-quality development of Xiwang Special Steel.

The idea of “competitions as trainings” was implemented. In 2020, the Company assigned three teams with a total of 9 staff, namely the electrician team, welder team and fitter team, to participate in the 2020 Binzhou Employee Occupational Skills Competition, with excellent results achieved. Experience sharing and exchange were conducted after the completion to enhance learning of theories and improve skill levels.

In 2020, the Company continued to enhance college-enterprise cooperation. In September, the Company successively welcomed more than 120 teachers and students from the Shandong University of Science and Technology to participate in a ten-day exchange study, with suitable positions provided, professional technicians arranged to give on-site explanations, and hands-on teaching. Through the visits and practical trainings, students truly felt the cultural heritage and broad development prospects of Xiwang Special Steel.



Dissertation oral defense for the master of engineering programme



Exchange study for teachers and students from the Shandong University of Science and Technology

In 2020, the relevant indicators of the participation in training of the Company's staff are as follow:

Categorized by staff gender

	Total person-times	Percentage	Average training hours per person
Female	2,200	9.6%	47 training hours
Male	20,735	90.4%	39 training hours

Categorized by staff type

	Total person-times	Percentage	Average training hours per person
Senior management	150	0.65%	62 training hours
Middle management	850	3.7%	53 training hours
Junior management	2,316	10.1%	47 training hours
Junior staff	19,619	85.6%	29 training hours

The independent training of talents of the Company also yields fruitful results. Zhang Lingtong, Director of Technology Center, was admitted by the University of Science and Technology Beijing with excellent results, and became the first targeted doctoral candidate nurtured by the Company. The Company strived to apply the research results to its production line, thus providing science and technology support for the high-quality development of the Company.

D. Labor Standards

All employees of the Company are located in China and there has been no breach of the Labor Law or any other applicable standards and regulations during their employment. Salary, overtime pay and benefits are based on local minimum (and maximum) standards. Employees are generally aged between 18 and 45, with special employees aged between 45 and 60. Any form of child labor or forced labor is forbidden in the Company. The Company adheres to an open, fair and impartial recruitment procedure on the principles of equal competition, merit-based selection and priority to internal candidates, which enables its human resources system to be more scientific and reasonable.

The Company implements an 8-hour working day system and its production frontline staffs are on 3 shifts. The Company strictly complies with the national statutory holidays and the day-off system stipulated by the Company in order to safeguard employees' proper working hours and rest days.

The Company adheres to equal employment policy and treats each staff member equally. Their nationality, race, gender, religion, age, sexual orientation, political affiliation and marital status will not affect their employment, compensation and promotion. An inclusive win-win work environment is created.

"The Law on Employment Contracts" is strictly complied with and employment contract is entered into with each staff member on their joining day. Contributions into basic pension insurance, basic medical insurance, unemployment insurance, injury insurance and maternity insurance are paid according to the laws. Financial gains of the Company are shared with the staff, contributing to harmonious labor relations.

For timely identification of problems in the Company, the Company conducts staff satisfaction survey or solicits constructive advice quarterly to provide its staff with a platform to participate in the management of the Company, which is conducive to identifying problems and making suggestions. A record of staff suggestions or advice will be kept in the departments concerned on a quarterly basis, corrective measures will be formulated by the departments within a week and the progress of the correction will be published thereafter.

II. Business Management

A. Supply chain management

The Company has adopted the “Procurement Management Procedure or Manual” in accordance with the Contract Law of the People’s Republic of China, the Bidding Law of the People’s Republic of China, the Special Equipment Safety Law of the People’s Republic of China, the Regulations on the Safety Administration of Dangerous Chemicals and other laws and regulations, which specifies the criteria for selecting suppliers, including (1) A good track record in the industry, with financial statements available. Priority will be given to suppliers with continuous business with large steel factories; (2) Suppliers with solid financial strength. Registered capital ranking the top 10 in the industry is one of the conditions of priority inspection. (3) Suppliers recommended by other steel factories. The Company considers factors including credit standing, service quality and delivery time after consulting steel factories that the Company has close relationship with. Before making the final selection, the prospective supplier is asked to provide a sample for examination or trial to ensure the good quality of the parts supplied and the Company conducts site visit to the supplier to confirm its delivery capability, the soundness of quality assurance system and financial strength etc.

The e-commerce platform was constantly optimized. Suppliers meeting the Company’s conditions are managed in a centralized manner by setting up a procurement and trading platform on which price inquiry, tender invitation and signing of procurement contract are conducted. Suppliers’ services are tracked throughout the procurement process for monitoring and evaluation of the suppliers based on their financial strength, delivery capability, advance payment capability, quantity and quality of delivery, contract performance, after-sales service and business integrity. The evaluation results determine whether the prospective suppliers meet the entry requirements, according to which a “contract supplier register” is established. Suppliers not meeting the requirements will be disqualified. As at December 2020, there was a total of 1,082 suppliers, 48.4% of which are located in the same province as the Company and 51.6% in other provinces.

The Group continues to improve its supply chain management and quality of the supplier team. In order to ensure a stable production and to enhance cost effectiveness, the Company has established a communication system with suppliers and conducted benchmarking against outstanding enterprises in the industry. Supply-chain related environmental protection laws, quality management system requirements and industry entry standards formulated by the government and applicable to the Company are all incorporated into the Company’s procedures for the entry and dynamic management of all its suppliers. The survival of the fittest principle is applied in the Company’s selection of suppliers in order to prompt suppliers to enhance their compliance and competitiveness, which enables the Company to further prevent social and environmental risks relating to the supply chain.

B. Product Responsibility

1. *Maintenance and Protection of Intellectual Property*

The Company strictly complies with laws and regulations such as the “Trademark Law”, the “Patent Law”, the “Copyright Law”, the “Law against Unfair Competition”, the “Foreign Trade Law” and the “Intellectual Property Law”. In the continuous pursuit of innovation and excellence, the Company restlessly enhances its development, use and protection of intellectual properties. The value of proprietary intellectual properties are fully leveraged when the Company expands markets at home and abroad and adjusts the industry structure, which effectively enhance the Company’s core competitiveness. Up until now, the Company has successively won a number of honours, such as the “Top Ten” Industrial Technology Transformation Project of Binzhou City, Major Patent Award of Binzhou City, First Prize of Technological Advancement of Binzhou City, First Prize and Greatest Investment Value Award in the Shandong Province Science and Technology Workers Innovation Competition, China Industry-University-Research Institute Collaboration Innovation Achievement Award, China Scientific and Technological Invention in the Machinery Industry First Award, and National Advanced Collective Entity in the Steel Industry; the Company has become a special material mobilization center unit in East China, being the only steel enterprise in Shandong that has been named as a national economic mobilization center and received such title, and is a major military-civil fusion enterprise focused by the government; the Company has become a member of the Metallurgical Professional Committee under the China Intellectual Property Development Alliance; the Company obtained 33 scientific and technological innovation achievement identifications and evaluations for new products, applied for 138 invention and utility model patents, and was granted 116 invention and utility model patents. Utilizing the advantage that the “National Standard Special Steel R&D Workstation” was established in Xiwang Special Steel, the Company held and participated in 41 amendments to national standards and industry standards, which facilitates the conversion of new products and new technology into productivity with standards and guides the transformation and upgrade of the steel industry with standards. The Company participated in 1 key national R&D project of the Ministry of Science, 1 national foundation fortification project of the Ministry of Industry and Information Technology, 1 Hongguang project of Chinese Academy of Sciences, and undertook 1 major science and technology project of Shandong Province, 2 key R&D projects of Shandong Province, 1 central government-guided local science and technology development funding project of Shandong Province in 2020 and 1 key R&D project of Binzhou City.



First Prize of the China Scientific and Technological Invention in the Machinery Industry



The National Advanced Collective Entity in the Steel Industry



"Top Ten" Industrial Technology Transformation Project of Binzhou City

2. Quality Testing and Products Recall

As the Company attaches high importance to product quality, the Company has formulated and executed quality testing systems and relevant procedures for its products in accordance with the standards in the Product Quality Law of the People's Republic of China, the Standardization Law of the People's Republic of China, the Metrology Law of the People's Republic of China and its Rules for Implementation, the Law of the People's Republic of China on the Protection of Consumer Rights and Interests, the Regulations of the People's Republic of China on Certification and Accreditation and other laws and regulations. The Quality Test Center of the Company is certified by CNAS national laboratory, which demonstrates the accuracy and reliability of the test data. The Company stresses on the advanced certifications of management system and products system to strengthen its processes and systems. The certifications the Company obtained include ISO9000 Quality Management System, Armament Quality Management System, IATF16949 Quality Management System, general hot rolled steel bar products certification of MCC (Beijing) Metallurgical Product Certification Centre Co., Ltd (中國中冶(北京)冶金產品認證中心有限公司), as well as LZ50 axle products certification and Supplier Qualification of CRRC Changchun Railway Vehicles Co., Ltd. (中車長春機車有限公司). Information management system of the Company was built by Baosight Software of Baosteel Group. A dedicated quality management and testing system is embedded in the business management and control system which enables various functions including the applying of metallurgical specification and quality design to the process, automatic collection, transmission, determination, analysis of data and issuance of warranties and reports. Products are manufactured in the production process according to the metallurgical and product specifications in the information system and the standards established for each process. Those passing the appearance and performance indicators test will be automatically determined to be stored while the unqualified products will be subject to material blockade in the information system and be dealt with according to the "Unqualified Product Management System". No products sold or delivered has ever been recalled due to safety and health concerns so far.



National Laboratory Certificate



Quality Management System Certificate



IATF 16949 Certificate

3. *Products and Customer Complaints*

As the Company attaches great importance to customer complaints, it has formulated and strictly enforced the “Rules of Customer Service Management”. In order to strictly manage customer information, since the launch of the Baoxin System (寶信系統), all customer information in the directory has been uploaded to the system. The information of all new customers was added by the staff of the Information Department to safeguard confidentiality. The level of permission to access the Baoxiu System is assigned in accordance with the job duties. In case of any violation of the rules or loss or leakage of confidential information, the persons concerned will be dealt with seriously by their immediate superiors. The Company cares about the after-sales service and the feedback from customers on their use of products, and provides its customers with professional technical support. There have been no significant litigations or complaints arising from the product quality or services.

As the Company puts much emphasis on the prevention of legal risks relating to the advertisement and promotion of products and services, it strictly complies with the Advertising Law of the People’s Republic of China, the Regulations on Control of Advertisement, the Implementation Rules for the Regulations on Control of Advertisement, the Anti-Unfair Competition Law of the People’s Republic of China and other laws and regulations. As of the date of this Report, there were no significant litigations or complaints arising from the advertisement and promotion of products and services.

C. Anti-corruption

There were no cases of corruption, bribery, fraud, illegal fundraising, or money laundering in the Company this year. In order to strengthen the supervision of staff members and combat financial crimes, the Company has established the Inspection Office directly managed by the General Managers. Staff members can report by mail, telephone or face-to-face meetings on any violations of laws and regulations which is detrimental to the Company’s interest, including any breach and dereliction of duty, abuse of power, fraud, money laundering and offering and acceptance of bribe as may be committed by various staff members of the Company. An online “Xiwang Forum” has also been established to allow the supervision of the Company by staff members’ opinions online. In order to change the behavioral patterns of the management and to eliminate any corruption, the Company has introduced “Code of Ethics of the Management” and implemented five “Anti-corruption Declarations of the Management”.

III. Society

A. Social Responsibility

As part of its commitment to social responsibility, the Company has assumed more social responsibilities and made further contributions to society while growing its business.

1. *Environmental Protection*

The Company adheres to the environmental protection philosophy of “saving energy and reducing consumption and waste, developing circular economy, and creating environmental-friendly Xiwang”. The Company has strictly complied with the requirements of the “Environmental Protection Law of the People’s Republic of China”, “Law of the People’s Republic of China on Prevention and Control of Air Pollution”, “Law of the People’s Republic of China on Prevention and Control of Water Pollution”, “Law of the People’s Republic of China on Prevention and Control of Soil Pollution”, “Law of the People’s Republic of China on Prevention and Control of Solid Waste Pollution”, “Law of the People’s Republic of China on Prevention and Control of Pollution from Environmental Noise”, and the “Emission Standards for Air Pollutants in the Steel Industry” (DB 37/990-2019). The Company acted upon the “Opinion on Promoting the Implementation of Ultra-low Emission in the Steel Industry” (HuanDaQi [2019] No.35), and other laws, regulations, standards and local norms on environmental protection. The Company faithfully fulfilled corporate social responsibility and actively tackled the pollution created in the production process. The Company’s discharge volume of major pollutants is lower than the special emission limits under the current standards of the State and Shandong Province. The execution of environmental management has significantly improved, with significant improvement in the appearance of the factories. The Company continuously contributes to improving the air quality. The Company’s emission levels of sulfur dioxide, nitrogen oxide and PM10 all meet the national standards and requirements and the total emission of pollutants has continued to decrease.

The Company adheres to the principle of “Environmental Protection is the First Priority in Corporate Development” (企業發展、環保先行), with the goal of improving environmental quality and creating a beautiful environment. The Company continued to increase investment in environmental protection and comprehensive environmental governance. A number of intensive environmental control measures have been implemented, including sealed and closed storage of all raw fuels; adoption of heating SCR denitrification, desulfurization with lime and plaster desulfurization twin towers, high voltage double chamber and four electric field + wet electrostatic dust and particulates removal, de-whitening on smoke emission and residual heat utilization process technology for smoke emission of sintering machines, to achieve a ultra-low emission with the “five in one” feature (i.e. desulfurization, denitrification, removal of particulates, flue gas whitening and residual heat utilization). The average emission concentration per hour of particulates, sulfur dioxide and nitrogen oxide in flue gas was not higher than 10, 35, and 50 mg/m³, respectively, which fully met the ultra-low emission standards of the steel industry; efficient Gore filter bags were used in other dust collectors for dust removal; cast Iron field of Blast Furnace was fully closed; dry dust removal method was used to recycle gas from both blast furnace and converter, which are equipped with recycling systems for sintering residual heat and cooling steam in converters. Through deepening the organized emission control, strengthening the unorganized emissions control and implementing clean transportation, sintering, ironmaking, steelmaking and other bulk material transportation all achieved an ultra-low emission level. As Xiwang Steel actively builds green factories, implements “Industrial Green Development Plan” (2016-2020) (工業綠色發展規劃(2016-2020年)) and “Green Manufacturing and Engineering Implementation Guide (2016-2020)”, it was rated as a “Green Factory” (The Third Batch of Green Manufacturer List) by the Ministry of Industry and Information Technology.



The green area of the Company representing over 27% of its floor area



Ecological protection and green factory

2. Social Charity

With respect to charity work, the Company combines charity work with its business development strategies and spiritual development, and continuously enriches its development. The Company regularly conducts charitable donations of the staff and poverty alleviation activities for the underprivileged annually. Every year, the staff also supports communities with difficulties including the disaster-stricken people, the out-of-school children and employees with financial difficulties by organising the “Donation of One day’s Salary” activity, in which staff members donate more than their one day’s average salary. The atmosphere of charity is strong in the Company, with solidarity, harmony and mutual support among staff members. Open, equal, impartial and effective support is given to those with difficulty. Values of giving back to society, caring about charity, and sharing of social responsibility have been internalized in the “Code of Conduct” of the Company and have grown to become “self-initiated actions” of its staff members.



Staff in difficulty, Xiwang with love



Caring and Charitable donation to the community

During the anti-epidemic period in 2020, Xiwang Special Steel established a COVID-19 epidemic prevention and control steering group to fully take charge of the anti-epidemic work in the industrial park and employee communities. A person-in-charge accountability system was implemented to make thorough arrangement and dispatch, enhance inspection, and set up a strict system for joint prevention and control supported by all groups. The roles of party organization and party members as a fortress and vanguards, respectively, were fully performed as party members, league members, cadres, employees and volunteers voluntarily joined the anti-epidemic community task force, under which disinfection, shift duty, garbage removal and other groups were formed to build a health “protective wall” for people in the communities.

The Company responded immediately by sending regards and supplies to the anti-epidemic frontlines. On 29 January, the first batch of MuscleTech nutritional protein bars worth over RMB1 million was donated to 13 hospitals and medical institutions in Hubei Province; on 30 January, the second batch of MuscleTech protein bars donated by the Company was urgently sent to the anti-epidemic frontline in Zouping City; on 19 February, corn germ oil, the third batch of donation made by Xiwang, arrived at Wuhan; on 24 February, the fourth donation of nutritional whey protein powder was delivered to Wuhan.

In addition, the Company actively donated supplies to the families of medical staff and volunteers in Binzhou City who went to Wuhan, and sent regards to them with high respect.



Epidemic prevention and control, and donation of supplies



Xiwang volunteer group

B. Caring for Employees

In order to enrich the spiritual lives of the management and staff members, motivate them to advance their careers and enhance cohesiveness of the Company, the Company cares its about staff members in both physical and social environments.

In terms of physical environment, the Company provides a comfortable, bright, safe and healthy work environment, with amenities including dormitory, canteen, bathrooms, library, toilets, badminton and table tennis courts for employees to enjoy a safe, carefree and comfortable Xiwang Special Steel community.



Cozy and convenient staff dormitory



Safe and reassuring staff canteen

In terms of social environment, staff activities are regularly organized to promote exchanges, learning and growth of staff members, improve their physical and mental health, enrich their lives and inspire their creativity. Staff committee was established to organize regular meetings to listen to employees' opinions.



Enjoying the Lantern Festival with the non-local staff



Basketball competition between staff of the Company

ECOLOGICAL COMMUNITY

The Company adheres to the environmental protection philosophy of “saving energy and reducing consumption and waste, developing circular economy, and creating environmental-friendly Xiwang” to protect the environment and give back to society.

The Company strictly fulfills the requirements of the “Environmental Protection Law of the People’s Republic of China”, “Law of the People’s Republic of China on Prevention and Control of Air Pollution”, “Law of the People’s Republic of China on Prevention and Control of Water Pollution”, “Law of the People’s Republic of China on Prevention and Control of Soil Pollution”, “Law of the People’s Republic of China on Prevention and Control of Solid Waste Pollution”, “Law of the People’s Republic of China on Prevention and Control of Pollution from Environmental Noise”, and the “Emission Standards for Air Pollutants in the Steel Industry” (DB 37/990-2019). The Company acted upon the “Opinion on Promoting the Implementation of Ultra-low Emission in the Steel Industry” (HuanDaQi [2019] No.35), and other laws, regulations, standards and local norms on environmental protection. The Company’s discharge volume of major pollutants is lower than the special emission limits under the current standards of the State and Shandong Province.

1. Environmental protection performance

The Company strictly implements the philosophy of “Environmental Protection is the First Priority in Corporate Development” and continues to increase its investment in environmental protection and the relevant comprehensive control and management, with its efforts well recognized by the government and the community. The Company was honored with the title of “Green Factory” by the Ministry of Industry and Information Technology of the PRC and became an exemplary enterprise in terms of environment protection and governance in the industry. The company team won the champion in the national quiz competition on environmental protection in the steel industry. The Company successfully passed the review of ISO14001: 2015 environmental management system, ISO50001: 2018 Energy Management System and “Clean Production Review”.

There were no major environmental and public pollution incidents in the Company. The safe use of radioactive sources and the disposal of hazardous wastes in compliance with regulations have eliminated environmental risks. The execution of environmental management has significantly improved, with significant improvement in the appearance of the factories; total emission of pollutants has continued to decrease and air quality has continued to improve, with the emission of smoke dust at 0.25 kg/ton steel, sulfur dioxide at 0.07 kg/ton steel and nitrogen oxide at 0.16 kg/ton steel, which are far below the emission levels of smoke dust at 0.6 kg/ton steel, sulfur dioxide at 0.8 kg/ton steel and nitrogen oxide at 1.2 kg/ton steel as required by the “Implementation Plan of Environmental Intensive Treatment of Steel and Iron Industry of Shandong Province” (Letter of Lu Environmental Office [2016] No. 159), as shown in Table 1:

Table 1: Emission of pollutants per ton steel**2020**

Type of pollutants	National emission standards (kg/ton steel)	Actual Emission of Xiwang Steel (kg/ton steel)	Reduction in emission (kg/ton steel)
Smoke dust	0.6	0.25	0.35
Sulfur dioxide	0.8	0.07	0.73
Nitrogen oxide	1.2	0.16	1.04

2. Sewage permit

The Company passed the review of Binzhou Environmental Protection Bureau (濱州市環保局) in November 2017 and was first granted a sewage permit (certificate no.: 913716006705049378001P). In November 2020, the Company renewed its sewage permit (certificate no.: 913716006705049378001P) as scheduled. The Company's total air emission limits are 1,454.548 tons/year for particulates, 920.713 tons/year for sulfur dioxide, and 1,499.59 tons/year for nitrogen oxide.

3. Intensive environmental treatment projects**A. Environmental protection investment**

Since 2013, the total investment of the Company amounted to approximately RMB1.55 billion, and has implemented a number of intensive environmental treatment projects, resulting in the actual emissions of pollutants in various processes being far below the national special emission limits. The current operation costs of environmental protection is RMB180 per ton steel.

B. Sintering process

To sinter the flue gas, the 360m² sintering machines of the Company have adopted technologies including heating SCR denitrification, desulfurization with lime and plaster desulfurization twin towers, high voltage double chamber and four electric field + wet electrostatic dust and particulates removal, de-whitening on smoke emission and residual heat utilization process technology, to achieve an effective ultra-low emission with the "five in one" feature (i.e. desulfurization, denitrification, removal of particulates, flue gas whitening and residual heat utilization). The effect is satisfactory, and it fully fulfilled the ultra-low emission standards of the steel industry. The Company is the first steel enterprise in the province to simultaneously achieve ultra-low emission and de-whiten smoke emission in the steel industry.

Closed conveyors such as closed belts and corridors are used in the transportation of raw materials and fuel used in the sintering process and the transportation of ingredients, blends and finished products. Closed cover and dust removal facilities are equipped at the unloading and receiving points of conveyors while the existing dust removal facilities are upgraded to adopt the US Gore dust bags, which are currently of advanced international standards, for effective collection of smoke dust. The concentration of particulates is lower than 10 mg/m³.

Through deepening the organized emission control, strengthening the unorganized emissions control and implementing clean transportation, sintering, ironmaking and steelmaking and other bulk material transportation all achieved an ultra-low emission level, with concentration of pollutants emission stably lower than the national limit of air pollutant emission, as shown in Table 2.

Table 2:**2020**

Production facilities	Type of pollutants	DB37/990-2019 Emission Standards for Pollutants in the Steel Industry (implemented after 1 November 2020) (mg/m³)	Concentration of pollutants emission (mg/m³)
Sintering machine heads	Particulates	10	3.6
	Sulfur dioxide	35	18.2
	Nitrogen oxide	50	37.3
Sintering machine tails	Particulates	10	2.84

C. Ironmaking process

In the blast furnace ironmaking raw material system, a closed design is used for storage tanks, coke troughs, trough transport equipment, shakers under ore and coke trough, belt conveyors and discharge ports for returning ore and coke, and weighing equipment for furnace ore and coke. Top suction hoods are equipped for outlets of cast iron, tanks and nozzles. A covered or closed design is used for iron and slag trenches while cast iron field of blast furnace is completely closed and configured with particulates collection and treatment measures. Existing dust removal facilities are upgraded and transformed to adopt the US Gore dust bags, which are currently of advanced international standards, for effective collection of smoke dust. The particulates concentration is lower than 10mg/m³, which ensures that the concentration of particulates emission is stably lower than the national limit of air pollutant emission. All emission values of the ironmaking process are lower than the national special emission limits, as shown in Table 3.

Table 3:**2020**

Production facilities	Type of pollutants	DB37/990-2019 Emission Standards for Pollutants in the Steel Industry (implemented after 1 November 2020) (mg/m³)	Concentration of pollutants emission (mg/m³)
Feed Launder Dust Removal in Blast Furnace	Particulates	10	3.54
Cast Iron Dust Removal in Blast Furnace	Particulates	10	3.44

D. Steelmaking process

Dry-type electrostatic dust removal technology is used for primary flue gas of converters, and after the upgrade, the concentration of particulates is kept steadily below 20 mg/m³. The facilities for secondary dust removal of converters, dust removal of refining furnace and dust removal of electric furnace are upgraded and reconstructed to adopt the US Gore dust bags, which are currently of advanced international standards, for effective collection of smoke dust. The particulates concentration is lower than 10 mg/m³. Tertiary dust removal system of converter is constructed to eliminate the unorganized emission of smoke dust, and ensure there is no escape of factory smoke dust. The reconstruction of the feeding system for steel-making lime and light-burning dolomite effectively collects smoke dust, and the concentration of particulates is lower than 10mg/m³, which ensures that the concentration of particulates emission is stably lower than the national limit of air pollutant emission. All emission values of the steelmaking process are lower than the national special emission limits, as shown in Table 4.

Table 4:

2020

Production facilities	Type of pollutant	DB37/990-2019 Emission Standards for Pollutants in the Steel Industry (implemented after 1 November 2020) (mg/m³)	Concentration of pollutants emission (mg/m³)
Primary dust removal of converter	Particulates	20	4.97
Secondary dust removal of converter	Particulates	10	2.73
Tertiary dust removal of converter	Particulates	10	3.7
Dust removal of electric furnace	Particulates	10	2.1
Dust removal of refining furnace	Particulates	10	4.88

E. Unorganized emission treatment

Closed treatment of raw materials. Various kinds of raw materials, such as iron ore concentrate, coal and coke powder, are all fully enclosed in the site, and dust suppression measures such as fog cannons are deployed in the sheds. The exit of the site is equipped with cleaning devices to clean the wheels and body of vehicles. Waste water generated from cleaning will be recycled after sedimentation. Ground and roads are hardened and the number of fixed sprinklers is increased, and wind and dust-proof nets are constructed.

Treatment of coke. Strategic partnership of coke supply was established and logistics management has been strengthened. Direct feeding of coke from the coking factory to the blast furnace feeding system has been achieved.

Treatment of iron ore. Production units are optimized to increase the direct proportion of sintering ingredients to iron ores. The amounts of sintering ore on the ground and secondary dust are reduced.

Cleaning of road surface. Five road sweepers, three water-spraying vehicles and one fog cannon dust-suppression vehicle were purchased for continuous cleaning, water spraying and dust suppressing on the road surface of factories to control road dust effectively.

Road vehicles management. Most of the vehicles and forklifts of the Company use the new energy LNG. Stagger shift of transport is strictly implemented during the warm season. The exits of the raw materials sites are equipped with vehicle cleaning devices.

F. Online monitoring

According to the requirements of the “Opinion on Promoting the Implementation of Ultra-low Emission in the Steel Industry” (HuanDaQi [2019] No.35), online monitoring devices of advanced national standards have been installed in 16 monitoring points, including flue gas at the heads of sintering machines, dust removal at the tail of the machines, dust removal from ore tank and cast iron field of blast furnace, secondary dust removal of converters, dust removal of electric furnace and lime kilns. The Company established an online network with provincial, municipal, and county environmental protection departments as required for 24/7 online monitoring of pollutants discharge.

G. Greening of factory area

To create a green and ecological landscape, the green area of the Company is currently more than 27%.

4. Comprehensive utilization of resources

A. Solid waste treatment

Treatment of slag of blast furnace. Slag produced during the ironmaking process of blast furnace is all grinded by mills to produce slag powder, which is used for industrial purpose such as construction.

Treatment of steel slag. Steel slag produced in the steel smelting process goes through a hot slag process. Magnetic filtered slag steel and steel granules are directly used for smelting again. Magnetic filtered steel slag is used for the production of slag powder, which is used as raw materials for sintering.

Recycling of dust ash. Dust ash containing iron is used again as raw materials for sintering. Pneumatic conveying and suction trucks are used in unloading and transport of dust ash to eliminate secondary dust pollution.

Disposal of Hazardous Wastes. The Company attaches high importance to the generation and disposal of hazardous wastes. All wastes produced were properly disposed of. For example, only companies with qualifications in handling hazardous wastes were engaged to handle hazardous wastes such as waste engine oil and oil drums produced in the production process of the Company. In 2020, 85.44 tons of waste mineral oil were disposed of in compliance with the law, which were 0.027 kg per ton steel.

Measures for reducing hazardous wastes include: (1) improving mineral oil quality to reduce consumption; (2) enhancing management to prevent dripping and seepage; and (3) increasing recycling of mineral oil.

Achievements in reducing hazardous wastes: with increasingly stronger enforcement of national environmental protection laws, more stringent requirements have been imposed on the treatment of waste mineral oil. Moreover, the Company's steel output this year increased significantly as compared with last year. Together with increased daily use, replacement or cleaning of production-related machinery or equipment due to enhanced daily inspections and maintenance as well as systematic furnace overhaul as the Company attached greater attention to safe production, the total generation of waste mineral oil increased. 85.44 tons of waste mineral oil were disposed of in compliance with the law this year. The Company strictly implemented environmental protection related requirements and passed the waste mineral oil produced by itself to companies with relevant qualifications for handling, so as to reduce impacts on the environment.

Disposal of Non-hazardous wastes. In 2020, a total of 1,117,489.6 tons of blast furnace slag were produced, which were 425.2 kg per ton iron; and a total of 345,533 tons of steel slag were produced, which were 110 kg per ton steel.

Measures for reducing non-hazardous wastes include: (1) improving quality of raw materials, such as quality of lime and overall grade of blast furnace feed; and (2) enhancing smelting standards.

Achievements in reducing non-hazardous wastes: The output of blast furnace slag and steel slag has decreased. At the same time, the blast furnace slag and steel slag produced by the Company were further processed as the powder for use as construction raw materials.

B. Water recycling

Processing, cascade recycling and cycle utilization rate of cooling water generated from processes and equipments of the Company are all $\geq 95\%$. Waste water produced in the production process is collected and processed in a centralized manner, and the reclaimed water is subsequently used for slag flushing in blast furnaces and dust reduction in raw material sites. Waste water generated in daily lives is collected and transported to water treatment plant of the Group. The treated waste water is in compliance with the "Comprehensive Discharge Standards for Water Pollutants in River Basins – Part 3: Xiaoqing River Basin" (DB37/3416.3-2018) and its amendments. Some of the reclaimed water treated by the water treatment plant will be recycled to the Company for flushing slag in blast furnace and converters. Fresh water consumption was 1.87 tons per ton steel. The Company did not encounter any issues about sourcing water that is fit for purpose in 2020.

C. Coal gas recycling

Coal gas from both blast furnace and converter is recycled using dry dust removal technology to improve gas recycling rate. Recycled coal gas from blast furnace and converter is used internally for dry-heating of hot metal tank, steel ladle and intermediate ladle, heating of billet in heating furnace for steel rolling, hot-blast furnace and fume furnace of the coal injection system, and lime production by calcination in limestone kiln, or externally supplied to power plants for power generation.

D. Comprehensive utilization of residual heat

The steam generated from residual heat in sintering, electric furnace, converters and furnace for steel rolling, etc. will be completely fed into the main steam pipeline of Xiwang Group, for the use of the corn processing. Low-quality residual heat from flushing slag of blast furnace and low-temperature flue gas will generate hot and cold water through the cooling and heating cogeneration project of the Company, which are used for production as well as heating in the office and the communities.

E. The consolidated electricity consumption in total was 368.84 kWh/ton steel.

F. The oxygen consumption in the steelmaking process was 59.54 m³/ton steel.

5. Reduce energy consumption and carbon emissions

The Company has established an energy management system and an energy management department which is responsible for the overall energy management of the Company and for implementing a three-tiered management system, namely “The Company-Energy Management Department-Production Plant” system.

High-performance, energy-efficient and environment-friendly technology and equipment are used in project construction. The Company aggressively develops a circular economy by combining the industrial features of intensive corn-processing business of Xiwang Group with that of the steel production industry, and achieved a comprehensive utilization of resources such as steam, water and gas to form a unique external and internal recycling system.

In terms of raw materials, the Company only uses high grade and low sulfur imported iron ore powder with low content of hazardous elements from Brazil and Australia, and a small amount of domestic iron ore powder in order to raise the quality of sinter and feed materials of blast furnace, to lower the water content of coke fed into blast furnace and to reduce energy consumption.

In terms of technologies, thick layers sintering, hot air sintering, mixture pre-heated by high-temperature steam, and steam generated by residual heat of smoke of sintering flue and ring cooler are applied to reduce energy consumption in the sintering process.

For blast furnace, the Company uses high furnace top pressure, high temperature, high injection of coal, high content in oxygen, use of residual heat from flushing water of blast furnace and BPRT technology to improve utilization rate of blast furnace gas and reduce energy consumption in blast furnace process. The use of one single tank of molten iron from start to finish in blast furnace increases the physical heat in converters. The system is optimized and smelting technologies with less slag are used to lower energy consumption in converters. Energy consumption is reduced by the use of technologies such as hot loading and hot conveyance of continuous casting billet, dual regenerative heating furnaces for steel rolling and recycling of water.

In 2020, the government had not yet conducted any greenhouse gas inspection for the year of 2020, and the total greenhouse gas emission in 2020 is 5,663,137 tons carbon dioxide equivalent, corresponding to 1.81 tons of carbon dioxide equivalent emission per ton of steel, according to a rough calculation. The Company strictly complies with the Interim Measures for the Administration of Carbon Emission Permit Trading (Order No. 17 of the National Development and Reform Commission of the People's Republic of China) and other relevant regulations to control carbon dioxide emissions.

The Company was not involved in any issues about packaging materials used in finished products in 2020.

6. Formulate emergency plans for environmental pollution to ensure environmental safety

The Company attaches great importance to environmental safety. In order to prevent the occurrence of environmental pollution incidents, relevant technical personnel joined together to look into the factors and production steps which are more prone to environmental pollution incidents in various production processes, and have formulated more than 10 emergency response plans for environmental pollution according to factors identified and the features of production processes, such as "Emergency Plans for Environmental Pollution Incidents", "Special Emergency Plans for Radioactive Sources", "Special Emergency Plans for Coal Gas Incidents", "Special Emergency Plans for Hazardous Wastes", and "Special Emergency Plans for Emission Reduction in Response to Heavily Polluted Weather", with drills organized.

Adhering to the spirit of "Environmental Protection is the First Priority in Corporate Development" with the goal of improving environmental quality and creating a beautiful environment, the Company has actively responded to the stricter requirements of the new environmental protection law on steel companies and duly fulfilled its social responsibility.



XIWANG SPECIAL STEEL COMPANY LIMITED
西王特鋼有限公司