



鞍 鋼 股 份 有 限 公 司
ANGANG STEEL COMPANY LIMITED*

Stock Code: 00347

2018

Environmental,
Social and
Governance Report



* For identification purposes only



REPORTING CYCLE

The information covered by the Report is for the period from 1 January 2018 to 31 December 2018.

SCOPE OF THE REPORT

Angang Steel Company Limited* (鞍鋼股份有限公司) (the “Company” or “Angang Steel”) is the reporting entity for the preparation of the 2018 Corporate Social Responsibility Report of Angang Steel Company Limited* (鞍鋼股份有限公司) (i.e. the Environmental, Social and Governance Report, hereinafter referred to as the “Report”), which discloses the performance of the Company in respect of social responsibilities in 2018 in an objective, true and systematic manner and acts as a platform for communication with all stakeholders, and under the supervision and inspection of the government departments and regulatory authorities while paying attention to the comments on the Company from the public and the media.

RELEASE CYCLE

This report is a yearly report.

MAJOR REFERENCE STANDARDS FOR THE REPORT

Guidance on Social Responsibility (GB/T36000–2015);

Guidelines of the Shenzhen Stock Exchange for Standardized Operation of Companies Listed on the Main Board (revised in 2015);

Environmental, Social and Governance Reporting Guide (Appendix 27 to the Listing Rules of Hong Kong Stock Exchange);

Memorandum for Business Subject to Information Disclosure on the Main Board No.1 – Matters Pertaining to Regular Reporting (further revised on 13 February 2018).



Preface (Continued)

ASSURANCE OF THE REPORT

Unless otherwise specified, this Report describes the business performance of Angang Steel (including the headquarters located at Anshan City, the Bayuquan branch located at Yingkou City and all subsidiaries). The amounts are denominated in Renminbi (RMB) in this Report.

PUBLICATION OF THE REPORT

This Report is released to the public in an online version which is available at the websites of CNINFO and Hong Kong Stock Exchange.

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Chapter I Company Overview

Angang Steel Company Limited* (鞍鋼股份有限公司), established on 8 May 1997 by Anshan Iron & Steel Group Co. Ltd. (“Angang Holding”) as its sole promoter, is listed on Hong Kong Stock Exchange and the Shenzhen Stock Exchange respectively. The registered capital of the Company amounts to RMB7,235 million. The Company is engaged in the whole production process for modernised steel and iron production, including coking, sintering, iron manufacture, steel manufacture and rolling operations, as well as the necessary ancillary facilities. The Company has advanced production technology and technical equipment which are on par with international standards with leading comprehensive competitiveness.

The Company mainly produces 18 major types of steel, including steel for railway, heavy section steel, small and medium section steel, steel bar, rebar, wire rods, extra thick plates, thick plates, medium plates, hot-rolled sheets, cold-rolled sheets, medium-thick and wide steel band, hot-rolled thin and wide steel band, cold-rolled thin and wide steel band, galvanized steel sheets (band), coating plates (band), electrical steel plate (band) and seamless pipes with steel products divided into over 700 product categories, more than 2,000 steel grade numbers and over 60,000 specifications. These products are widely used in industries such as machinery, metallurgy, petroleum, chemical, coal, electricity, rail, ship, automobile, construction, home appliances, aviation and national defense. A total of over 100 products are honored with the title of products famous for high quality at provincial level or above, of which, railway steel rail, steel plate for hull structure and container plate are rated as China’s Top Brand products.

The Company has obtained certifications for the GB/T19001 Quality Management System, GB/T24001 Environmental Management System, GB/T28001 Occupational Health and Safety Management System and GB/T23331 Energy Management System. Its steel for shipbuilding was certified by the classification societies in 9 countries. Its steel for automobile was certified for IATF16949, European CE certification and Japanese JIS certification. The quality inspection and measurement center, the department responsible for raw material and product test of the Company, has been accredited by China National Accreditation Service for Conformity Assessment, is equipped with a number of internationally advanced detection facilities and therefore is able to carry out physical property tests and element content analysis and inspection according to such domestic and international standards as ISO, ASTM, JIS, BS, DIN, NF, API and GB.

As at 31 December 2018, there were 34,797 employees in the Company. In 2018, the Company produced 23,381,200 tons, 24,515,000 tons and 22,604,500 tons of iron, steel and steel products respectively.

Chapter I Company Overview (Continued)

The year 2018 kicked off the efforts to put all the guiding principles from the Party's 19th National Congress into action, and it was also a crucial year for continuing to implement the 13th Five-Year Plan as well as a year for Angang Steel to pursue development instead of merely struggling for survival and set off the new journey of prosperity and development with great endeavors. Angang Steel heeded Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles from the Party's 19th National Congress, earnestly followed General Secretary Xi Jinping's "four-promotion" requirements and the gist of his keynote address made at the symposium for furthering the rejuvenation of Northeast China, and enhanced Party building so as to solidify and guide the employees to work hard wholeheartedly and forge ahead ambitiously around the three key fundamentals, namely "efficiency, quality and reform". As a result, remarkable achievements were made in various tasks and record-high enterprise benefits were brought about.

The Company took steady steps to develop its steel and iron business and made coordinated efforts to tap the growth of relevant bylines to optimize the business landscape on a continuous basis; improved the production arrangement and human resource allocation, reinforced cost reduction and efficiency enhancement and advanced intelligent manufacturing to level up operation efficiency; promoted institution and regime reform, consummated the scientific research system and improved marketing and operating mode to release the vitality of reform; and expanded brand influence and gave priority to setting up quality-oriented brand, rolling out brand with well-arranged product portfolio and cementing brand through technology in a consistent manner to strengthen the brand image of the Company and in turn improve the core competitiveness of the Company. In addition, the Company performed the duty in fulfilling the social responsibility, complied strictly with social responsibility standards, and energetically safeguarded interests and rights of the shareholders, creditors, employees, suppliers, customers and consumers. In this term, the Company has faithfully fulfilled its corporate social responsibility in the aspects of environmental protection, sustainable development, public relations, social and public welfare establishments, targeted poverty alleviation, etc., so as to give back to the society with all initiatives.

Chapter II Protection of Shareholders' Rights

I. CORPORATE GOVERNANCE

The controlling shareholder of the Company is Anshan Iron & Steel Group Co. Ltd. Angang Holding is an enterprise solely funded by the state. Its legal representative is Wang Yidong.

The following chart sets out the relationship between the Company and its de facto controller.



In strict compliance with the Company Law, the Securities Law, the Code of Corporate Governance for Listed Companies and the relevant requirements of the CSRC as well as the Rules Governing the Listing of Securities on Hong Kong Stock Exchange, the Rules Governing the Listing of Shares on the Shenzhen Stock Exchange and the relevant laws and regulations, the Company has formulated the Articles of Association, the Rules of Procedure for General Meetings, the Rules of Procedure for the Board of Directors, the Rules of Procedure for the Supervisory Committee, the Working System for Independent Directors and other rules and regulations, which have specified the duties and authorities, procedures and obligations of general meetings, the Board of Directors, the Supervisory Committee and the management in respect of decision-making, execution, supervision and other aspects, thereby forming a governance mechanism of reasonable division of labour, clear authorities and responsibilities and mutual balance among the authority body, the decision-making body, the supervisory body and the operation.

Chapter II Protection of Shareholders' Rights (Continued)



I. CORPORATE GOVERNANCE (CONTINUED)

The Board comprises seven members including one chairman, three executive directors and three independent directors. The Board has established four special committees, namely the strategic committee, the remuneration and appraisal committee, the nomination committee and the audit committee, which are all comprised of directors. In particular, all of the members of the audit committee are independent directors while the majority of the members of the nomination committee and the remuneration and appraisal committee are independent directors who are also the conveners. There is one independent director who possesses professional qualifications in accounting in the audit committee. Each of the special committees is accountable to the Board and submits proposals to the Board for consideration and approval. The institutional arrangement of the Company provides full protection for the performance of duties of the independent directors and each of the special committees.

The Supervisory Committee comprises three members including one employee representative supervisor. The members of Supervisory Committee perform their duties and responsibilities in supervision under the Company Law, the Articles of Association and the authorization from the general meetings.

The management is responsible for the arrangement and implementation of resolutions approved at the general meetings and Board meetings, the production, operation and management of the Company and the daily operations of the internal control of the Company.

II. GENERAL MEETINGS

In order to protect the rights of its shareholders, the Company convenes general meetings at appropriate time and venue according to the relevant requirements and notifies its shareholders in a timely manner. The general meetings are convened by adopting way of poll combining on-site voting and online voting to ensure that the shareholders can exercise their rights.

In 2018, the Company convened four general meetings at which 22 resolutions were considered and approved including the "Resolution in Relation to the Issuance of Short-term Financing Bills of the Company in the Interbank Bond Market", the "Resolution in Relation to the Acquisition of 100% Equity Interests in Angang Group Chaoyang Iron & Steel Company Limited by the Company from Anshan Iron & Steel Group Co. Ltd." and the "Resolution in Relation to Change of the Company's Business Scope and Amendments to the Articles of Association".



Chapter II Protection of Shareholders' Rights (Continued)

III. INFORMATION DISCLOSURE

The Company performs the obligations in information disclosure in strict compliance with the relevant laws and regulations as well as the relevant requirements of the Shenzhen Stock Exchange and Hong Kong Stock Exchange. The Company has formulated a standardised internal review process for information disclosure to further improve the efficiency and quality of information disclosure and ensure the truthfulness, accuracy, completeness, timeliness and fairness of the information disclosed. The Company makes truthful and detailed disclosure of its business performance and various important matters to the investors via China Securities Journal, the CNINFO website and the website of Hong Kong Stock Exchange. In 2018, the Company published 4 regular reports and 72 announcements to the public.

IV. PROFIT DISTRIBUTION

The Company understands the great importance of investment returns to the investors and has formulated a long-term profit distribution policy in view of stability. In 2012, pursuant to the Notice regarding Further Implementation of Cash Dividends Distribution of Listed Companies 《關於進一步落實上市公司現金分紅有關事項的通知》 issued by the CSRC, the Company made amendments to the Articles of Association, which defined the basic principle of the profit distribution, the specific details of the profit distribution policy and the consideration and approval procedures for the profit distribution plan, and specified in the Articles of Association that “the profit distribution by way of cash shall be no less than 10% of the distributable profit recorded by the parent company for the year”.

On 5 June 2018, the profit distribution plan for 2017 was considered and approved at the general meeting of the Company. In 2017, the earnings per share amounted to RMB0.775 and the Company distributed cash dividend of RMB0.232 per share, representing a cash dividend ratio of approximately 30%. On 29 June 2018, the Company distributed the cash dividends with an aggregate amount of RMB1,682 million to all shareholders.



V. COMMUNICATION WITH INVESTORS

The Company has formulated the Management Measures for Investor Relations to regulate the communication between the Company and the investors. In 2018, the Company organised 10 activities in connection with investor relations, through which the Company communicated with the investors in respect of industry prospects, production and operation and other issues to deliver the valuable information on the Company. In addition, the Company also communicated with the investors by responding to enquires from the investors on the interactive platform and answering telephone enquiries from the investors through a hotline, thereby ensuring an unimpeded communication channel between the Company and the investors. In strict compliance with the Guidelines for Fair Information Disclosure of Listed Companies, the issues communicated were based on the announced information of the Company.



Chapter III Protection of Employees' Rights

I. OVERVIEW ON EMPLOYEES

As at 31 December 2018, the Company had 34,797 employees with 29,906 on-the-job employees, among whom 2,279 were from management, 2,915 were from technical support, 24,264 were from production, 448 were from services. The Company had 2,938 on-the-job female employees, accounting for 9.97% of the total on-the-job employees, and 13,711 on-the-job employees were under the age of 45, accounting for 45.85% of the total on-the-job employees.

As at 31 December 2018, the Company had 20,676 employees with an education level higher than technical secondary school, accounting for 69.13% of the total on-the-job employees, among whom 56 employees had a doctoral degree, accounting for 0.18% of the total on-the-job employees; 462 employees had a master's degree, accounting for 1.54% of the total on-the-job employees; 8,074 employees had a bachelor's degree, accounting for 26.99% of the total on-the-job employees; 8,590 employees were college graduates, accounting for 28.72% of the total on-the-job employees; and 3,494 employees graduated from technical secondary schools, accounting for 11.68% of the total on-the-job employees. The Company had 4,711 employees with middle or senior technical titles, accounting for 15.75% of the total on-the-job employees, and 12,247 employees with high technical ability (senior personnel and above), accounting for 40.95% of the total on-the-job employees.

In 2018, the Company recruited 92 fresh graduates from colleges or above, accounting for 0.23% of the on-the-job employees as at the beginning of 2018, and terminated employment contracts for 55 employees, accounting for 0.14% of the on-the-job employees as at the beginning of 2018.



II. PROTECTION OF EMPLOYEES' RIGHTS

Pursuant to the Labour Law, the Labour Contract Law, the Implementation Regulations of Labour Contract Law and other laws and regulations, the Company has formulated the Management Measures on Labour Contracts, which specifies the rights and obligations of both the Company and the employees, and has strictly enforced such rules. In compliance with the relevant national laws and regulations, the Company protects the legitimate rights of its employees and prohibits the use of child labour and forced labour. The Company always adheres to the principle of making reward according to work and implements an equal pay for equal work policy with equal employment opportunities. There is no discrimination policy towards gender, age, illness, race and religion. The Company has entered into labour contracts with all the employees with labour relations. The Company has prepared and issued the relevant measures and procedures for management of business secret-related personnel to practically fulfill the obligation of keeping national secrets and safeguard the relevant interests and rights of employees.

Pursuant to the requirements on insurance policies at the national, provincial and city level, the Company has established such employee insurance system as basic pension insurance, basic medical insurance, etc., as well as a supplementary medical insurance system, thereby forming a four-in-one medical protection system comprising the basic medical insurance, the over-limit medical insurance, the supplementary corporate medical insurance and the medical relief fund. The Company has actively participated in the corporate annuity scheme of Angang Group. The Company has made timely contributions to various insurance policies in a full amount and provided welfare expenses as stipulated to improve employee benefits. According to the law, the employees are entitled to paid annual leave, family leave, leave for marriage or funeral, maternity leave and other holidays. The pay for overtime and holiday work of employees is in compliance with the relevant policies of the government and the Company.



Chapter III Protection of Employees' Rights (Continued)

II. PROTECTION OF EMPLOYEES' RIGHTS (CONTINUED)

The Company always regards the Collective Contract and the Specialized Collective Contract for Protecting Rights and Benefits of Female Employees as the specific measures for maintaining a harmonious labour relationship as well as protecting legitimate rights of employees and special interests of female employees. In strict compliance with the Collective Contract and the Specialized Collective Contract for Protecting Rights and Benefits of Female Employees, the coverage of collective contracts has reached 100%. The Company has strengthened the inspection and supervision of the performance of collective contracts to ensure the performance of the legitimate rights of employees. In October, the special committee under the employee representative meeting and the employee representatives conducted special inspection of the performance of the Collective Contract and the Specialized Collective Contract for Protecting Rights and Benefits of Female Employees by 23 grass-roots units in terms of labour deployment, remuneration, working hours and rest and leave, staff education and training, insurance and welfare benefits, protection of female employees' rights, occupational safety and health and other aspects and reported the performance of Collective Contract to the employee representative meeting. In strict compliance with the Special Rules on the Labour Protection of Female Employees, Rules on the Prohibited Scope of Labour of Female Employees and other requirements as well as the terms of the Company in respect of the management measures on the labour protection of female employees, the Company achieved equality between male and female in terms of equal pay for equal work, vocational education, technical training, promotion, participation in corporate democratic management and other aspects. The Company offered "two diseases" general examinations, with the coverage of 100%, and special physical examinations for all female employees to reduce the incidence of gynecological cancers of female employees and effectively maintain the physical health of female employees. The Company has also purchased "Ankang Insurance (安康保險)" for female group covering 3,141 female employees. 6 female employees made claims and received compensation of RMB300,000 in total therefor.



III. RELATIONSHIP BETWEEN THE EMPLOYEES AND THE COMPANY

1. Unimpeded Channels for Employees' Participation in Corporate Management

The Company has implemented the Opinion on Establishing Harmonious Labour Relations issued by the central government and the State Council in a conscientious and consistent manner and strengthened the establishment of corporate democratic management system in a basic form of employee representative meetings. In particular, the Company focuses on the democratic management while deepening the reform to ensure that the works are carried out according to the laws and regulations under standardised procedures without any flaws and mistakes. The Company convened the 15th meeting of the first session of employee representative meeting to consider and approve 12 items including the executive work report of the Company and the employee training scheme for the year 2018, 100% of which was considered. In particular, polls were conducted in respect of the items related to the vital interests of employees, including the Use of Welfare Expenses for the Year 2018 (Draft) and Measures on Performance and Remuneration Assessment for the Year 2018 (Draft). The Company convened review meetings for the proposals from the employee representatives to review the proposals received and file such proposals for further handling and then give feedback to the grassroots units and the relevant employees in a timely manner, while reporting the results at the annual employee representative meeting. The Company has handled all the proposals from the employee representatives as well as the opinions and suggestions. The Company fully implemented an open system for factory affairs to broaden the channel for disclosure of factory affairs. The Company also facilitated the disclosure of affairs of the basic working zones and teams. The Company conducted democratic consideration and evaluation on the performance of the leaders and cadres and achieved full rating coverage in this regard.



Chapter III Protection of Employees' Rights (Continued)

III. RELATIONSHIP BETWEEN THE EMPLOYEES AND THE COMPANY (CONTINUED)

2. Building a Company with Harmonious Labour Relations

The Company always focuses on the comprehensive development of corporate activities for labour relations to establish new-type labour relations which are standardised and orderly, fair and reasonable, mutually beneficial and harmonious and stable so as to protect the legitimate rights of the Company and its employees and in turn to pursue healthy growth of the Company. The Company has pushed forward the implementation of various works for establishing harmonious labour relations, including furthering disclosure of factory affairs, implementing collective negotiation and collective contract systems and strengthening the mediation mechanism for labour conflicts. The Company has conducted a special activity called "Online Questions for Company (網絡問企)" to establish a channel for employees to give opinions, suggestions and appeals and motivate them to participate in democratic management. 49,450 opinions and suggestions were given by the employees via the "Online Questions for Company (網絡問企)" platform throughout the year, of which 17,316 passed preliminary approval and 26,889 were settled. The Company has set up a labour dispute mediation committee to learn the development of labour disputes in a timely manner and strengthen the efforts in handling letters and visits of employees as well as labour disputes in order to maintain an unimpeded channel for the employees to express their opinions, mediate labour conflicts in a timely and effective manner, nip the conflicts in the bud and solve the issues at the basic level, thereby establishing harmonious labour relations. The Company has further strengthened its effort into the democratic management reception day, regular communication between the cadres and employees, inspection of employee representatives and other matters to have better knowledge of employees' needs, listen to employees' opinions and respect employees' aspiration. The opinions and suggestions proposed by the employees are studied and the existing problems are rectified and solved.

III. RELATIONSHIP BETWEEN THE EMPLOYEES AND THE COMPANY (CONTINUED)

3. Improving Working Environment for Employees

The Company has placed great emphasis on the labour protection for employees and thoroughly publicized and implemented the Labour Law, Trade Union Law, Work Safety Law, Law on Prevention and Control of Occupational Disease and other relevant laws and regulations. Intensified efforts have been exerted on up-to-standard infrastructure construction for standardization of production safety of shifts. In the campaign themed by “delivery of coolness in summer”, the trade union of the Company, on the basis of survey on employees' demands, purchased electric fans, medicine cabinets, salt soda water and other heatstroke prevention products with a value of over RMB570,000 for front-line employees. In the “provision of warmth in winter”, winterization outfits and supplies worth of RMB37,500 were provided for front-line workers having long been engaged in outdoor operations in winter. Besides, the Company proactively organized such activities as the “Ankang Cup” paper collection, labour protection experience soliciting and achievements gathering in respect of safety standardization management made by work groups. At the 34th annual meeting of the League for Labour Protection of Trade Unions of National Iron and Steel Enterprises (全國鋼鐵企業工會勞動保護工作聯合會), five papers of Angang Steel were honored with the outstanding paper awards.

The “Star of Mass Security (群安之星)” election was thoroughly implemented. The employees were commended for their prominent contributions in terms of prompt identification, screening and treatment of potential safety hazards in production, timely correction of unsafe acts of employees, proposal of suggestions on rationalization of safety, prevention of accidents, etc. and 65 front-line employees were commended or awarded throughout the year.

The trade union's participation function was strengthened. In the “Month for Production Safety”, the Company organized screening and rectification of accident potentials and occupational hazard factors. A total of 13,123 potential safety hazards were identified and 13,103 potential safety hazards were rectified. For the rest 20 hazards which cannot be rectified temporarily, appropriate protective measures have been taken. In addition, the Company organized blackboard newspapers on safety and pictorial exhibition as well as 1,541 education campaigns on safety. The trade unions at all levels, closely centering on “thorough fulfillment of corporate responsibilities in respect of production safety”, organized the employees at front line, in work groups and at different positions to earnestly learn knowledge on safety and occupational health in order to prevent production safety accidents to greatly improve the safety level.



Chapter III Protection of Employees' Rights (Continued)

III. RELATIONSHIP BETWEEN THE EMPLOYEES AND THE COMPANY (CONTINUED)

4. Helping Employees in Difficulties

The Company has further enhanced the long-term mechanism for poverty relief. In accordance with the requirements of superior trade union, the Company redefined employees of exceptional poverty and needy employees of the Company, improved files for accurate identification and included the said employees in the assistance networks of the All-China Federation of Trade Union and governments to expand relief channels, increase relief efforts and ensure accurate poverty relief. The Company organised the extensive visit event named "Warmth for Thousands of Homes (温暖送萬家)", and paid 14,767 visits to model workers, employees in difficulties and retired personnel in plight throughout the year and gave out relief funds of RMB7,194,600 (including medical relief funds of RMB3,058,700) for 765 individuals. The Company cares about the lives of its employees and organised pragmatic activities including celebrating birthdays for employees, match-making parties, health lectures for female employees, and legal counselling to build a brand image for labour union services.

5. Helping and caring for Disabled Employees

The Company has 458 disabled employees. In order to enhance the management of and services to the disabled employees, the Company has established a federation for disabled persons and commenced activities to care for the disabled employees. The Company paid over 469 visits to employees with difficulties or disabilities and gave out comfort gifts amounting to RMB62,000 to those employees. In order to enrich the cultural and sports life for the disabled employees, the Company organised poetry recitation, skill competition, reading and other activities for them, and encouraged them to participate in table tennis, badminton, darts, and track and field competitions of above municipal level.

III. RELATIONSHIP BETWEEN THE EMPLOYEES AND THE COMPANY (CONTINUED)

6. Carrying out Extensive Cultural and Sports Activities

Top priority is given to unifying the minds and concentrating efforts in the ideological and political work of the trade union. We have thoroughly developed the employee-targeted and front-line worker-nestled learning and promoting campaigns regarding Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles from the Party's 19th National Congress. We organized keynote speech competition titled "learning the guiding principles from the Party's 19th National Congress, becoming qualified workers in the new era", the model work theme seminar named "making breakthroughs in the new era, further contributing to high-quality development of Angang Steel" and other series activities to propagate the guiding principles from the Party's 19th National Congress among the grassroots and work groups. The Company organised a variety of cultural and sports activities suitable for employees. Placing great emphasis on the cultivation of cultural qualities of employees, the Company encouraged literary and artistic creation to explore and develop interests and hobbies for employees and presented a total of 10 "Great Culture Lecture" throughout the year. The Company also organized activities including lantern riddle event, delivering culture to factories as well as badminton competition and mountaineering team competition, which were all welcomed by employees.

The men team of tug-of-war from the central steelmaking plant of Angang Steel participated in, the World (Indoor) Tug-of-War Tournament held in Xuzhou on behalf of China and secured the fourth place in the 560kg event, which was the record high of China's men tug-of-war team in the world tournaments.

7. Caring for Physical and Mental Health of Employees

The Company arranges its employees to attend physical examinations every year with full coverage of physical examination and health filing for all employees. The Company also organised vacation for employees by batches and 28,011 individuals participated in the vacation activities throughout the year.



Chapter III Protection of Employees' Rights (Continued)

IV. TRAINING AND QUALITY IMPROVEMENT OF EMPLOYEES

In 2018, the Company heeded the requirements of corporate production and operation as well as transformation and upgrade, targeted the goal of fostering technologically leading individuals and core team in the industry, and gave priority to the establishment of big-picture awareness and improvement of capability in quality and efficiency enhancement in its education and training work with the view to levelling up the business competence and comprehensive quality of its employees in all fronts and providing sufficient personnel and intelligence support for the Company's goal of becoming a steel enterprise with strongest comprehensive competitiveness.

Upon sufficient research and analysis, the Company orchestrated and arranged the employee training plan. It organized employee concentrated training courses for a total of 1,563,600 training hours and received attendants of 18,347 person-times, representing a per capita training length of 55.6 training hours at a per capita cost of RMB452.4. The training courses covered political theories, management innovation, scientific decision-making capabilities; the capability in automatic, information-based and intelligent construction; new technology, equipment and process; advanced study in respect of modern logistics, international operation and online iron and steel e-commerce development; as well as position-based innovation and technology mastermind and operating skills sharing, which effectively improved the employees' professional capability, conduct and quality. As at 31 December 2018, the Company's targets were to complete 93% or more of each of the full coverage training plan and the designed training hours; and 97.2% and 98.4% of the plan and designed training hours were actually completed, marking the satisfactory achievement of its training targets.

V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES

In 2018, Angang Steel continued to fully implement the 0123 safety management model and further optimized the safety management and responsibility systems of “leadership responsibility of the Party and government, one position with dual responsibilities”. It strengthened renovation of latent safety hazards and achieved effective improvement in safety management and risk control in this regard by taking standardization of safety production as the main thrust, focusing on the construction and consummation of “Due Preventions” and “Two-nonoccurrence mechanism” and emphasizing efforts on the safety trainings which had “one theme and one class for each month”.

In 2018, Angang Steel achieved the goal of nonoccurrence of substantial major safety production incidents and recorded a total of four safety production incidents (including one fatal incident, one badly injured incident and two minor injury incidents). The injury rate per 1,000 employees was 0.1‰, beating the target of 0.15‰ set for the entire year. In 2018, the Company did not have any grave fire disaster.

1. Enhanced the Identification and Revision of Safety Systems to Further Improve the Safety Systems

- (1) We made amendments to the “Production Safety Responsibility System”, “Use of Operation Placard and Safety Management Measures”, “Administrative Measures for Safety in Confined Space” and other management systems in consideration of the production safety actualities of the Company so as to standardize and optimize the safety management process and improve the effectiveness and pragmaticity of such systems;
- (2) We also made out relevant national laws, regulations, departmental rules and standards concerning safety and organized relevant units to identify and eliminate such latent safety hazards as prescribed under the aforesaid national mandate safety standards implemented in 2018, thereby ensuring lawfulness and compliance.



Chapter III Protection of Employees' Rights (Continued)

V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES (CONTINUED)

2. Strengthened the Segmentation and Implementation of Safety Responsibility to Further Consummate Safety Responsibility Systems

- (1) Breaking down the target to delegate the responsibility progressively. We organized and held the 2018 safety outset meeting to assign safety and occupational health targets and indicators to each unit. Besides, the letters of responsibility for production safety were required to be signed by units at different levels and written safety commitment was executed by everyone, thereby achieving full coverage of production safety responsibility system horizontally and vertically.
- (2) Subdividing the responsibility to achieve responsibility corresponding to position. We organized the departments and units of the Company to prepare full coverage production safety responsibility system based on the positions so as to allocate the safety responsibility to each position in a feasible manner, specify the indicators and delegate the responsibility with the view to achieving "responsibility corresponding to position".
- (3) Reinforcing the awareness of responsibility fulfillment with various measures. We continued to press ahead "inspection on safety management" and adopted the model featuring "determined positions, contents, time period, responsible person, quantitative indicators and appraisal and assessment results", which effectively enhanced the safety responsibility awareness of management at all levels. In addition, we had the "safety performance archive" template in place for each unit to set up and improve performance archives for the management at different levels with reference thereto. As a result, a total of 272 safety performance archives were established and the awareness of safety performance of management at different levels improved significantly.



V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES (CONTINUED)

3. Intensified Prevention and Control over Safety Risks to Further Level up the Capability of Risk Prevention and Control

- (1) Fully advancing the establishment of a dual prevention mechanism. Each unit was required to go through risk identification, draw four-color map of safety risks, make a safety risk list, work out a risk control plan and establish a data base so as to have a sound risk control measures and management system in place, which enabled safety risk publicity and warning in significant areas and in turn ensured that safety risks were under control in all fronts.
- (2) Further emphasizing prevention and control of major risks. We made arrangements for the identification, screening, rectification and elimination of major latent safety hazards from the perspective of specialty and segment in each unit. Major latent hazards likely to incur in the non-casting crane, portal hook and other facilities at central steelmaking plant of Angang Steel were fully rectified.
- (3) Observing the red line of law and ensuring lawful and compliance production. Angang Steel completed the postponement and renewal of permit for safe production of dangerous chemical products; new license and continuing education trainings for 268 major principals and persons in charge of production safety from each units were rolled out; the "three-simultaneous" safety and occupational health rating work were carried out for 21 new, renovation and expansion projects in accordance with laws so as to ensure lawfulness and compliance.



Chapter III Protection of Employees' Rights (Continued)

V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES (CONTINUED)

4. Emphasized Latent Hazard Screening and Rectification to Further Upgrade the Essential Safety

- (1) Enhancing allied action among departments to carry through “normalized” safety inspection. In order to fully observe the requirements of the State Administration of Work Safety, the SASAC, the province and municipalities at different levels, we, in accordance with the overall arrangement of Angang Group, organized relevant departments (centers) to work out specific inspection plan and inspection priorities in a stepwise and group-based manner, and then to conduct “normalized” safety inspection over the safety management of the subordinate units, in the construction site of technological renovation projects and made by the subcontractors emphatically.
- (2) Reinforcing special treatment to push for substantial effects of “special rectification” with great efforts. The Company carried out a number of special rectification on latent hazards in respect of liquid metal, gas, dangerous chemicals, explosive dust, working in confined space, special facilities, flood control, etc. throughout the year, and uniformly issued the “special inspection notice” therefor. A total of 397 problems were identified from the entire Company and all were rectified.
- (3) Increasing investment in safety to promote further upgrade in “essential” safety. In 2018, the Company contributed production safety fees of RMB42,174,700 throughout the year. Thanks to such contribution, safety protection facilities in the field were improved, emergency rescue instruments were replenished and the essential safety standards were levelled up.
- (4) Working to avoid reoccurrence of problems identified in “external inspection” by analogy. In 2018, specialists from Liaoning Safety Commission, provincial and municipal production safety regulatory bureaus, and Henan production safety regulatory bureau reached out to the Company and carried out seven special safety inspections in succession, and identified a total of 135 problems from 29 perspectives. Targeting such problems, the Company arranged relevant funds, time and personnel to follow up progressively and guaranteed timely rectification of the problems. Moreover, referencing the problems identified by the provincial authorities, relevant units carried out comprehensive self-investigation and inspection by analogy to ensure full coverage of inspection without blind spot. All rectification were completed so far.

V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES (CONTINUED)

5. Promoted the Conformity and Upgrade of Production Safety Standardization to Further Cement Safety Foundation

The Company engaged external specialists to conduct production safety standardization evaluation over 15 units including the general iron-making plant of Angang Steel and the Bayuquan iron-making department and corrected and put an end to 586 problems identified in the evaluation. Consequently, the 15 units including the general iron-making plant were successfully exalted as Level-I enterprises in terms of production safety standardization. Meanwhile, performance evaluation on safety management was carried out for 13 grassroots units on a quarterly basis. A total of 332 problems were put forward in the evaluation. Upon correction within the prescribed time and review acceptance, the basic safety management standards leveled up progressively.

6. Pushed Ahead the Construction and Innovation of Safety Culture to Further Enhance Safety Awareness and Capacity

- (1) Production safety month campaign and comprehensive safety accident drills were organized and rolled out to improve the safety awareness and emergency response capability of the entire staff. The Company carried through the safety-oriented theme month activities and launched a total of 12 such events including the “advocating target management, fulfilling responsibilities hierarchically”.
- (2) The “one class for each month” training was also carried forward in a consistent manner. Training courses concerning the publicizing and implementation of duel prevention and related-party management were emphatically carried out for management staff involving 537 person times throughout the year with the view to improving the safety capacity and standards of management at different levels. In addition, production safety knowledge and management capability tests were also arranged for management at different levels, and a total of 221 employees of the Company were selected for random tests.

Chapter III Protection of Employees' Rights (Continued)

V. PROTECTION OF OCCUPATIONAL HEALTH AND SAFETY RIGHTS OF EMPLOYEES (CONTINUED)

7. Perfected the Subcontractor Entry and Exit Mechanism to Further Implement the Supervisory Responsibility of Subcontractors

- (1) Entry qualification review over the interested parties was conducted in accordance with the principle of "the contractee shall be responsible, while the one in charge be held accountable". Throughout the year, a total of 40 interested parties were approved for entry. At the same time, the Company also made amendments to the Interested-Party Safety Management Measures, established and consummated the interested party integrity and credit systems and improved requirements in relation to subcontractor safety supervision and the "Blacklist", so as to increase efforts on interested-party supervision consistently.
- (2) Great efforts were particularly exerted on the special review over interested party evaluation, daily supervision, and independent management of interested parties in accordance with the principles of "equal standards, consistent requirements, simultaneous trainings and unified rewards and punishment".

8. Consolidated Occupational Health Management Continuously To Further Exert the Effects of Prevention and Control of Occupational Hazards

Pursuant to the requirements under the Law on Prevention and Control of Occupational Disease, the Company issued the Plan on Occupational Health Examination and Workplace Occupational Disease Inducement Detection (職業健康檢查及作業場所職業病危害因素檢測計劃) and subdivided the occupational health targets and indicators for each unit. It also entered into the 2018 Technological Service Contract on Occupational Health Examination and Workplace Occupational Disease Inducement Detection (《2018年職業健康檢查及作業場所職業病危害因素檢測技術服務合同》) with Angang Steel Labour Hygiene Institute (鞍鋼勞動衛生研究所), pursuant to which, Angang Steel Labour Hygiene Institute conducted occupational disease inducement detections for the subordinate units of the Company and had completed 100% of the detection plan. Employees at different positions were informed of the detection results by various means and each unit had documented the respective Report on Occupational Disease Inducement Detection issued by Angang Steel Labour Hygiene Institute in the Occupational Hygiene Archives for file for the current year. In addition, the Company also provided occupational health physical examination for employees engaged in positions with exposure to dust, noise, toxic substances, high temperature and radiation as well as those specialty practitioners with full examination coverage. The Company has had such personal occupational health examination reports documented in the Personal Occupational Health Monitoring Record for Workers (《勞動者個人職業健康監護檔案》) for file after notifying the individuals concerned and obtaining their signature confirmation.



I. INTEGRITY MANAGEMENT IN COMPLIANCE WITH LAWS

1. Strengthened Internal Supervision in All Fronts

In addition to following through the Constitution of the Communist Party of China (《中國共產黨章程》), the Company also takes the lead in abiding by the Code of Ethics of the Communist Party of China (《中國共產黨廉政準則》), Certain Criteria on the Party's Political Life under the New Situation (《關於新形勢下黨內政治生活的若干準則》), Disciplinary Punishment Ordinance of the Communist Party of China (《中國共產黨紀律處分條例》) and other regulatory provisions, and conducts business in a white-handed and upright manner in strict accordance with relevant laws and regulations of the PRC. In 2018, the Company complied with the Criminal Law of the People's Republic of China (《中華人民共和國刑法》), the Law on Anti-money Laundering of the People's Republic of China (《中華人民共和國反洗錢法》) and other relevant laws and regulations in terms of anti-corruption.

The Company follows the scenario of “supervision from within and outside, systemic prevention and control” and the overall guideline of “politics-oriented requirements, management thoughts, IT-based means and modularized achievement” to carry out supervisory platform construction and in turn ensure the effectiveness of supervision in respect of commercial bribery regulation. To this end, the Company worked to update the integrity archives aiming for the enhancement of daily supervision and management over the leadership and personnel holding critical and sensitive posts; and required secretary to the discipline inspection committee at each level to participate in the selection and appointment of the leadership and middle-level cadres as well as their employment regularization and self-governance investigation. The Company continued the establishment of an integrity map, did dynamic upkeep for the integrity map information system and pushed for real-time detection and prompt correction of integrity risks and management problems, which improved the management of the Company efficaciously. The Company also further promoted the harnessing of the “Five Violations”, required the Party cadres to sign the undertaking of engaging in none of the “Five Violations”, and made supervisory channels lie open to the worker masses so as to create an operating atmosphere full of integrity, entrepreneurship and transparency.

2. Kept Increasing Efforts on Discipline Inspection

The Company carried through the working principle of focusing on the higher-ups in case investigation, insisted on no off-limits areas, full coverage and zero tolerance, and gathered supervisory forces at all levels to carry out discipline inspection effectively. The Company also continued to make proper use of discipline supervision and enforcement in “Four Forms” and took disciplinary measures against 31 Party and administrative employees in 2018.

I. INTEGRITY MANAGEMENT IN COMPLIANCE WITH LAWS (CONTINUED)

3. Further Advanced Special Oversight

The Company further advanced the special oversight concerning ground limestone, caustic calcined magnesite, steel slag tailings, etc., by organizing relevant department to work out rectification measures and urging them to implement the same. In 2018, the grassroots units of the Company conducted a total of 105 special inspections, put forward 221 management proposals and improved 61 rules and regulations.

4. Deeply Carrying out Themed Education Activities

The Company has formulated and issued the annual plan on “tightening discipline and regulating conduct” themed education activities, according to which, discipline inspection and supervision organs at all levels rolled out more than 620 activities in regard of Party regulations and disciplines, case study for warning purposes, and targeted education for critical posts; and visits to exhibition hall on combating corruption and advocating integrity education were organized for over 2,700 Party members and cadres. In addition, the WeChat Official Account titled “Rectitude and Incorruptibility” was registered to give systematic and picturesque media coverage of working requirements of the Central Government and the Group, updates on and achievements of work initiated by the Party committees and discipline inspection committees at all levels, as well as desirable experience and practices of the grassroots units.

II. RESPONSIBILITY FOR PRODUCT QUALITY

The Company focused on the key indicators of “efficiency, quality and reform” to enhance quality management on an ongoing basis; adopted a problem-oriented approach to improve the overall product quality; and optimized the product structure with demands as the driver. The Company steadfastly followed the path of pursuing high quality development by virtue of differentiation, specialty and professionalism, and carried on with its efforts in technical innovation and quality enhancement for benefit making to make for its purpose of improving product quality and core competitiveness. In addition, it focused on users' experiences to push forward with the development of cost-effective and high-tech steel products in new product development in a bid to fulfill the meet personalized demands of users. As a result, abnormal quality rate reported by the customers for the year decreased by 0.01% as compared with the corresponding period of the previous year.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

In 2018, the Company complied with the Trademark Law of the People's Republic of China (《中華人民共和國商標法》), Patent Law of the People's Republic of China (《中華人民共和國專利法》), Law of the People's Republic of China for Countering Unfair Competition (《中華人民共和國反不正當競爭法》) and other relevant laws and regulations in terms of responsibility of product quality. The Company has observed relevant laws and regulations as well as the requirements under relevant standards on a voluntary basis and updates the directory of laws and regulations applicable to the quality management systems of the Company on an annual basis to make sure downright law-abiding and up-to-par product manufacturing. Meanwhile, the Company provides the stakeholders with primal products and sincere services in return for their confidence in the Company. In 2018, the Company did not have any breach of relevant laws and regulations including the Law on Product Quality (產品質量法).

1. Optimized the Management Mechanism for the Scientific and Technological R&D Systems to Arouse Vitality for Technological Innovation

Angang Steel has been strengthening its technological R&D system. The Company followed the green development trend featuring short flow, high efficiency, light weight, energy saving, cleanliness, high performance, and multi-functionality in steel materials production, aimed to meet the personalized needs of customers in terms of product varieties, prioritized the development of green processing equipment, large-scale production capacity, precise control methods, digital design and development, and reliable operation of equipment, and focused on the full coverage of technology, technique innovation and products. On the basis of stimulating the enthusiasm, initiative, proactivity and creativity of technical employees and with technology management and innovation system as guarantees, it upheld the driving role of innovation in industrial development and gave priority to the transformation of innovation results during its transformation and upgrading. With energy saving, consumption reduction and green manufacturing as key drivers during its transformation and upgrading, the long-term development ability in technical innovation as strategic focuses and the system building as strong supports to technical innovation, the Company pursued the green value in the whole life cycle of iron and steel products covering the cycle of iron elements resources and energy, the cycle of water resources and the recycling of solid wastes. In particular, the Company promoted the full range of coverage and development of major products in the automobiles, railways, marine engineering, shipping, military engineering and energy sectors so as to meet the new demands of downstream users consistently. With all the foregoing endeavors, Angang Steel has been devoted to becoming a resource-efficient, environmentally friendly and sustainable green manufacturer as well as a modern iron and steel enterprise with satisfactory economic results and strong international competitiveness.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

1. Optimized the Management Mechanism for the Scientific and Technological R&D Systems to Arouse Vitality for Technological Innovation (Continued)

The Company has set up the technological innovation management committee and the technological innovation specialist council to advance the reform of the technological R&D systems progressively. The successful convening of the technological innovation conference has strengthened the establishment of national key laboratory for metallic materials for marine equipment and relevant applications (海洋裝備用金屬材料及其應用國家重點實驗室). Besides, the Company issued the Decision on Furthering the Systemic and Institutional Reform of Angang Group Iron and Steel Institute (Angang Steel Technical Center) (《關於深化鞍鋼集團鋼鐵研究院(鞍鋼股份技術中心)體制機制改革的決定》), pursuant to which, the technical center has developed the organizational landscape consisting of one national key laboratory, two R&D centers, three administrative departments and ten research institutions, and was also authorised to seek external cooperation, purchase equipment, initiate independent R&D projects, arrange staffing and give incentives at its own discretion.

2. Enhanced Standardized Management

Angang Steel strived to improve the market influence of its products through taking on more work in respect of formulation and revision of international and national standards. It led the revision of the ISO 4978 International Standard on Steel Sheet and Strip for Welded Gas Cylinders (《焊接氣瓶用鋼板和鋼帶》), the amended version of which was officially published in August 2018. It completed the formulation and revision of nine national standards concerning High-Strength Crack Arrest Steel Plate for Ships, Longitudinally Profiled Hot-Rolled Steel Plate, Continuously Hot-dip Zinc-Aluminum-Magnesium Alloy Coated Steel Sheet and Strip, etc.; made applications for 32 projects on formulation and revision of national and industrial standards including the Standard on Structural Steel Used in Extremely Cold Surroundings; completed the identification, confirmation and publication of 128 national and industrial standards as well as 67 foreign standards; and disclosed over 200 enterprise standards and 53 technical specifications including the Bainite Steel Rail, which had prepared the standard ground for the Company's development and commercialization of new products, the upgrade of existing products and the improvement of product quality. In addition, the Company completed the publication of 98 product standards on the self-declaration system, thereby guaranteeing the compliance and lawfulness of its standards. In 2018, the Company won the second prize in China Standard Innovation and Contribution Award (中國標準創新貢獻獎).



II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

3. Management of Patents and Proprietary Technologies as well as Technological Cooperation and Exchange

(1) Management of patents and proprietary technologies

In order to consolidate the basis of the intellectual property right work, the Company has formulated strategies on intellectual property rights and annual plans on the intellectual property right work and amended the Administrative Measures on Technology Export (《技術輸出管理辦法》). During the year, 569 patents of the Company were accepted for review by the competent authorities, including 303 invention patents, accounting for 53.2%; 434 patents were licensed by the competent authorities, including 197 invention patents. The Company's licensed patents representing patent quality multiplied by 1.28 times as compared those of last year. 54 technologies were recognized as the Company's proprietary technologies. The "method of coal blend by means of coal petrography using vitrinite reflectance for cokemaking as major parameters" of the Company was honored with the 20th China Patent Award; 34 proprietary technologies were rewarded Company-level Outstanding Proprietary Technology Prizes; 106 technology external transfer contracts were entered into for a total amount of RMB17,900,500. Moreover, the project on development of high-strength steel plates for containment was the sole project in Anshan City that was listed under the "projects on transformation of technological results with add-on incentive subsidies (科技成果轉化獎勵性後補助項目)" in Liaoning Province.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

3. Management of Patents and Proprietary Technologies as well as Technological Cooperation and Exchange (Continued)

(2) Technological cooperation and exchange

Following the success of the Angang Steel-Northeastern University academic exchange, an expert team consisting of over 90 specialists under the leadership of Wang Guodong (an academician) and Tang Lixin (a vice principal) of Northeastern University visited Angang for discussion and exchange. As a result, 55 cooperation intentions were reached and 10 technological development contracts were executed. Besides, the Company also entered into an agreement on the construction of the joint laboratory for metal materials for marine engineering with Harbin Institute of Technology; and signed 36 technological development contracts (tripling the number of last year) with relevant colleges and institutes, as well as 45 technological service contracts. Meanwhile, more than 100 people of the Company attended over 20 domestic and international academic events including the China International Steel Manufacturing Annual Congress (中國國際鋼鐵年會) and the Sixth International Symposium on Advanced Steel Technology (第六屆先進鋼國際研討會), and contributed more than 200 pieces of dissertations. It also organized the Symposium on Ironmaking Benchmarking, Energy Conservation and Cost Reduction and New Technology (煉鐵對標、節能降本及新技術研討會), Low Alloy Steel Academic Annual Meeting (低合金鋼學術年會), Mining Academic Exchange Covering Ten Provinces and Cities (十省市礦業學術交流會), and other interprovincial and multi-city academic conferences in cooperation with local metallurgic associations. Furthermore, the Company completed the evaluation on the technological results from 13 projects undertaken by Angang Steel, Lingyuan Iron & Steel Co., Ltd. and other units.

The Company participated in the appraisal of 530 pieces of dissertations of Liaoning Institute of Metals and 122 pieces of outstanding corporate technological papers and attended more than 100 outstanding forums and competitions. Two persons including Pang Keliang were honored with the title of "Excellent Technology Practitioner in Liaoning (遼寧省優秀科技工作者)" and two persons including Zhang Xiaojun, were awarded Technical Prize for Metallurgical Youth by Chinese Society for Metals(冶金青年科技獎). Moreover, 17 projects including Development and Application of the Pulsing-type Micro-damage Deslagging System of Angang Steel (《鞍鋼涌動式微損扒渣系統開發及應用》) were awarded prizes in the National Metallurgical Youth Innovation and Creativity Competition, the First China Innovation Approach Contest and other competitions.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

4. Maintenance and Protection of Intellectual Property

Following the development concept of “Parallelized Technological Development, Production and Reserve”, Angang Steel's work on the protection of intellectual property rights is moving on the right track. In order to intensify the control over core technologies, the Company, based on its analysis of core competitiveness in respect of patent technology, applied for 16, 11, 10, 10, 8 and 4 patents respectively in the six technological areas including “steel wire rope for HMZL system and its manufacturing method (HMZL系統鋼絲繩用鋼及製造方法)”, “technology on precision utilization of coal for coke making (煉焦用煤精準使用技術)”, “technology on slag hot modification (熱態轉爐渣改質技術)”, “rope sockets for HMZL system and relevant apparatus (HMZL系統索節製造及裝備)”, “liquid metallurgical slag waste heat recovery technology (液態冶金渣餘熱回收技術)” and “soil corrosion-resistant underground structural steel (耐土壤腐蝕埋地結構用鋼)”. As a result, a patent portfolio has taken shape in key technological fields, thus laying a foundation for optimizing the Company's portfolio of key patented technologies, preparing grounds for Angang Steel to work out and implement the patent strategy, and providing powerful support for improving its control over key technologies.

5. Increased Efforts on Technology Upgrades

During the year, the Company put forward 7 batches of scientific research project programs, representing 1.4 times of that in last year, with a total of 529 subjects. Thanks to the emphasized research efforts on the development of strategic, foresighted and game-changing technology as well as high-grade, precision and advanced products, the Company obtained approval for the contract-free trial production of 38 programs, completed project setup for 79 programs in a short time, went through 124 subject demonstrations and passed the conclusion acceptance for 84 programs, having outstripped the annual target. The Company had 31 programs under research, representing an increase of 6 as compared to last year, of which, two national subjects including the program on titanium-steel clad plate technology passed the conclusion acceptance. The “low temperature environment steel for polar ship” obtained state funding in the amount of RMB33 million; RMB7.24 million was transferred into the account to finance the two national projects including the “high-performance containment plate” led by Angang Steel; additional promotive funds of RMB2 million was granted to each of the headquarters of the Company and the Bayuquan Branch from the provincial R&D budget.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

6. Technological R&D Results and Major Cases

(1) Technological R&D results

Three products including the 18MND5 steel plate for accumulator tank substrate in nuclear power station made their global debut, five products including the extremely wide and thin steel for luxury cruise ships were rolled out for the first time in the PRC, the nonselective supply of cut deal and steep profiles for ships set a precedent in the PRC; and the Company was also the first to successfully develop the 1%Ni ultra-low carbon and high nickel series marine corrosion resistant bridge steel. 14 projects including the study on ultra-fine and extremely pure high-speed steel powder and its manufacturing technology were listed under the key project scheme on enterprise technological innovation of Liaoning Province. The projects on “development and application of clean and highly efficient coke making technology and relevant equipment” and “technology for whole process optimized coke plant wastewater efficient treatment and resourceful reclamation as well as its application” won the first prize and the second prize of National Scientific and Technological Progress Awards, respectively. 13 projects including the “innovation and application of the full process key technology for the new-generation corrosion-resistant steel for rolling stock” obtained provincial and ministerial incentives. The “Angang Steel integration and application of technology on manufacturing high-performance steel for ship with extra-large container” won the Market Expansion Award of China Iron and Steel Industry Association. Three projects of the Company passed the review of the expert panel for the first prize of Angang Group Scientific and Technology Progress Award. 115 research achievements were launched at the platform for transformation of technological results in the province. Evaluation on technological achievements for 13 projects was completed, including the Research and Development of Technology on SDS Dry Desulfurization in Combination with SCR Denitrification at Medium-Low Temperature for Flue Gas from Coke Oven (《焦爐煙道氣SDS幹法脫硫聯合SCR中低溫脫硝技術研發》).



II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

6. Technological R&D Results and Major Cases (Continued)

(2) Major cases on technological R&D

Case: full implementation of the technological leader program

- put forward development vision. The “technologically advanced, qualitatively superior, tirelessly committed and always outperforming” vision came into existence in response to the strategic requirements as put forward at the 15th meeting of the first session of the employee representative meeting of Angang Steel.
- specify the general principle. The Company strived to develop prime steel products carrying proprietary intellectual property rights as well as first-class technologies and major proprietary technologies with certain influences with the view to fostering stronger capability in integration and transfer of core technologies, following the pull of technological demands in the major industries of the PRC, catering to the future of the industry and as guided by the Company’s strategic development plan.
- establish an overall target. The Company aimed to make breakthroughs in respect of core technologies for new process, new products, new equipment, high quality, low energy consumption and low cost in the upcoming three to five years, thereby enhancing the technological competitiveness of the Company substantially to the world first-class level and bringing up a group of leading talents of significant influence in the industry.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

6. Technological R&D Results and Major Cases (Continued)

(2) Major cases on technological R&D (Continued)

Case: full implementation of the technological leader program (Continued)

- form a cluster of projects. The Company has worked out the 2025 technological leader program (2025科技領軍計劃) which encompassed 440 subjects and set forth the general target, overall management principle, contents of the plan, specific directions and indicators covering 21 sectors including iron making, steelmaking, automobile, nuclear power, marine engineering, etc., after going through the process of project collection, internal expert demonstration, facilitation by holding meetings and engagement of external experts for review. Such plan has covered all technologies in terms of process such as the foresighted, steering and strategic technologies, technologies for improving process, reducing costs and enhancing efficiency, resource conservation and environmental protection technologies, intelligent manufacturing technology, equipment integration technology, etc.; and reached out to the foresighted, steering and strategic technologies, full product coverage technology and the technologies for improving product quality in terms of products. Meanwhile, the plan also laid down the goals, directions, indicators, backing subjects, supporting platforms and the expected results catering to the 21 prioritized sectors and proposed to carry out production, learning and research cooperation in the 50 selected directions.



II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

6. Technological R&D Results and Major Cases (Continued)

(2) Major cases on technological R&D (Continued)

Case: full implementation of the technological leader program (Continued)

- work to make progress. The Company issued the 2025 technological leader program; announced the leading personnel, chief experts and technical directors under the 2025 technological leader program; and completed the publicity of the targets and indicators of the 2025 technological leader program, recruitment of leading personnel as well as the signing of liability warrants. The Company also formulated the Measures on Management of 2025 Technological Leader Program and relevant supporting management mechanisms, which prepared sufficient guarantee in respect of delegation of management authority, funding security, rewarding and incentives for achievements as other aspects. In addition, the Company also expanded the channel of shouldering its bounden duty in virtue of the leader program, improved its ability to shoulder the bounden duty and magnified the effects of shouldering its bounden duty through proactively enhancing the cooperation with such key colleges and institutes as Northeastern University and Harbin Institute of Technology, making full use of the role of the Company's capacity as national key laboratory and member of Corrosion-resistant Steel Strategic Ally (耐蝕鋼戰略聯盟) in pursuing the technologically leading position and other means.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

7. Pushed For Continuous Upgrade of Quality Management to Enhance Quality Competitiveness

In 2018, the Company convened the “3.15” quality meeting, whereby caps were identified, weak links were shored up, and quality management improvement were pressed ahead steadily.

In terms of quality management, the Company gave preferential weight to quality breakthrough, process innovation, quality planning and key quality activities to push for the continuous upgrade of quality management, improve customer experience and the capability of benefit making on an ongoing basis and enhance the quality competitiveness. Quality of management and control over iron and steel processes improved significantly thanks to the energetic promotion of the 1+10+N key quality projects; the priorities of quality work were clarified by formulating the three-year plan on product quality improvement of the Company after discerning the status quo and tracking down problems, as well as identifying gaps in comparison with the peers, and by instructing the grassroots units to come up with plant-level plans; the through yield and composite yield of the Company's rolled steel increased by 0.93% and 0.34% year on year, respectively, as a result of the endeavors in leveling up up-to-standard rate and composite yield by weekly recording and monthly assessing based on production lines and product categories; quality compliant and objection decreased 0.03% and 0.01% based on the same caliber, respectively, owing to the targeted rectification of the customers' major disagreeables with the aid of the accelerated establishment of customer demand archives; customer experience improvement rate increased by 50% by setting up 10 quantitative indicators for customer experience and in turn conducting appraisal based on the monthly feedbacks from customers; to cope with factors prejudicing quality stability, over 40 projects concerning optimization of process, simplification of working procedures and reduction of alloy additives in the quest for breakthroughs by ameliorating and innovating process technologies; implementation and demonstration were proactive carried out for over 200 requests for process and equipment melioration; over 500 times of equipment listing and delisting were made in the process spot check in cooperation with the equipment department, with a delisting ratio of 94.55%; such quality training projects as represented by the 9th six sigma training course, the CISA consistent quality management advanced program and the 6th IATF 16949 quality training were carried out; the capability of pre-delivery quality control for finish products was enhanced in virtue of the formulation and revision of 9 program profiles and 11 management measures as well as the efforts on promoting the independent operation of the Company's professionally staffed quality control department in accordance with the principle of “utilizing both full-time and part-time personnel, preferring the major to the minor, co-presence first and streamlining later”; continuous improvement was achieved as 310 problems were exposed in over 150 times of quality inspections. With the successful completion of 22 six sigma programs, quality indicators of a number of products including the tire cord steel mounted up; besides, excellent programs were selected and sent for the 3rd Six Sigma Program Competition in the Metallurgic Industry, which resulted in remarkable achievements with 4 first prizes and 4 second prizes.



II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

8. Strengthened Product Certification and Fostered Brand

In 2018, the Company completed more than 60 domestic and international certifications including the automobile steel, the super-high-strength steel for marine engineering, the German HPQ, the Indian BIS, etc., which effectively facilitated the further expansion of product sales channels and the presence in high-end product market. In terms of major certifications the Company had obtained, the cut deal and hot-rolled and cold-rolled products were acknowledged to be in line with the JIS standards of Japan; the bridge steel for the Rhine Bridge of Germany passed the HPQ certification; the cut deal for construction and the structural steel were in compliance with the GOST of Russia; steel produced by the Bayuquan 3800 mm production line was qualified for ship hull and marine engineering; hot-rolled, cold-rolled, zinc-coated, silicon steel, hot-rolled, medium-to-thick plate, wire rod products produced in Anshan and Yingkou were accredited by the BIS of India; moreover, such certifications also included the KS certification for Korean standard threaded rebar, CRCC certifications for quality assurance capacity in heavy rail and for rolling stock hot-rolled new-type corrosion-resistant steel, as well as certifications on automobile steel granted by the vehicle enterprises and key users.

In 2018, the Company's cold-rolled non-oriented electrical steel was acknowledged as "Key Brand Product in Liaoning" and six products including the cut deal for rail, ship and marine engineering were acknowledged as "Brand Products in Liaoning"; the bridge steel was awarded the "Extra Superior Quality Prize", and five products including hot-coated aluminum-zinc steel strip and the hot-rolled wire rod for carbon cold heading were awarded the "Golden Cup Prize" by China Iron and Steel Association.

II. RESPONSIBILITY FOR PRODUCT QUALITY (CONTINUED)

9. Monitored the Packaging Quality to Improve the Presence of Angang Products

Upon monthly special review over the product packaging quality of the manufacturing plants and the stevedoring, shipment and warehousing quality of a dozen of units including logistics parks, ports and off-port warehouses, the packaging, warehousing and shipment quality inspection team of the Company would make information disclosure and continuous improvement on the problems identified and procured the units with problems to conduct self-inspection thoroughly. Thanks to the strict control of quality in respect of packaging and handling and the close observance of the standards on freighting for railway, road and marine transportation, total consumption of packaging materials amounted to 75,500 tons, and discontent over packaging of products and discontent over bundle-off packaged wire rod of the Company decreased by 21% and 28%, respectively, throughout the year.

10. Green Logistics

In response to the call of the state policy, the Company insisted on the development of green logistics in the iron and steel industry, continued to optimize resource allocation and proactively rolled out a number of green transportation projects such as the railway transportation instead of land carriage, coal supply by bulk rather than piecemeal, new energy LNG truck, transportation with dumping trailers, circulating carrier-vehicles., with the view to curbing transportation pollution and protecting the ecological environment. The Company also increased the proportion of container transportation year by year, and became the first to implement the large-tonnage special frame-mounted container for transportation of steel coils in the steel-oriented logistics industry so as to reduce the use of straw-made products, reduce environmental pollution and in turn blaze a trail to participate in the "Belt and Road" construction by virtue of green logistics, thereby making for the harmony of economic benefits, social effects and environmental interests.



III. ESTABLISHMENT OF A RESPONSIBLE SUPPLY CHAIN

1. Improved the Raw Material and Fuel Procurement Systems

In 2018, the Company exerted greater efforts on the “establishment, renovation and abolition” of relevant systems as well as the “learning, drill and utilization” in relation thereto to optimize the management process on a continuous basis and learn from the lean management cases. Through innovating the methods and contents of management, the Company revised and consummated a number of relevant mechanisms including the Administrative Measures on Sales of Raw Materials and Fuels (《原燃料銷售管理辦法》), Procedures for Supply Management of Raw Materials and Fuels (《原燃料供應管理程序》), Measures on Management of Procurement (《採購管理辦法》) and Detailed Rules on Management of Suppliers (《供方管理實施細則》), which improved the process of raw material and fuel supply effectively, made for the normalized implementation of the procurement and sales businesses and in turn leveled up the procurement management capability of the Company.

2. Observed the Raw Material and Fuel Procurement Systems

In 2018, the Company carried out a large range of special review over the compliance of the raw material and fuel procurement businesses; such problems as inconsistent product descriptions, laxity in implementing technical specifications, irregular execution of contracts, etc., were reported and dealt with in a timely manner, and the PDCA cycle management were implemented in raw material and fuel procurement. The relevant inspection teams also inspected the subordinate units with procurement authority. The inspections were conducted by way of seminars, data review and on-spot check. Focus of the review mainly rested on the compliance and effectiveness of project undertaking, procurement proposal, contracts and acceptance check. The rectification progress of problems identified in previous monitoring and investigation were also covered by the review. Correction suggestions would be put forward and issued to each of the units with procurement authority in the form of a review report, and rectifications were required to be completed within the prescribed period, whereby closed-loop management of authorized procurement was effectuated.

III. ESTABLISHMENT OF A RESPONSIBLE SUPPLY CHAIN (CONTINUED)

3. Reinforced Management of Quality Acceptance of Raw Materials and Fuels

The Company reinforced quality control from the aspect of acceptance on raw materials and fuels and undertook raw material check, test and acceptance in close compliance with the Quality Standards and Acceptance Rules on Raw Materials and Fuels, thus ensuring the receipt of up-to-standard raw materials and fuels. The competent departments would conduct supervision and spot check on the acceptance process and the quality of raw materials and fuels at any time so as to maintain effective and controllable acceptance. The Company also regulated the raw material and fuel sampling system and specified the testing items. Upon monthly collection and analysis of the quality conditions, a monthly report would be presented for the purpose of identifying deficiencies and working out melioration solutions so as to ensure that the quality of raw materials and fuels can meet the production needs of the Company. The Company enhanced interaction with suppliers in quality management and feedback, resulting in continuous improvement in quality management of both supply and demand sides.

4. Implemented Ecofriendly and Transparent Procurement

The Company carries out procurement through public bidding in keeping with the goal of maintaining “transparent, cost-effective, safe and efficient” procurement management systems. While securing stable procurement channels backed by major suppliers with stable production, delivery and transportation capacity and well-established quality assurance in the industry, the Company also expands the scope of public bidding to the extent possible to further attract the general suppliers eligible for participation and in turn to develop effective competition in the procurement market. In 2018, public bidding for raw materials and fuels (excluding the varieties subject to strategic procurement) accounted for 85.22%. The larger proportion of raw materials and fuels subject to public bidding has prepared the ground for more accurate tracking of market prices, identification of market price and supply-demand tension and systemic cost reduction in respect of staple raw materials and fuels of the Company.

III. ESTABLISHMENT OF A RESPONSIBLE SUPPLY CHAIN (CONTINUED)

5. Consistently Ameliorated Supplier Entry Requirements and Evaluation Thereon

In 2018, the Company amended the Detailed Rules on Management of Suppliers of Raw Materials and Fuels (《原燃料供方管理細則》), the Entry Requirements for Suppliers of Raw Materials and Fuels (《原燃料供方准入條件》) and other management rules. It also revised and consummated the procedures and measures in respect of entry qualification certificates of suppliers, additions of qualified suppliers, annual review, etc., which improved punishment measures on suppliers with overdue and outdated certificates and enhanced management on procurement suppliers. Thanks to the increasingly improving supplier entry requirements and relevant implementing rules, the Company accomplished full coverage of entry standards over all suppliers. In order to intensify dynamic management of suppliers, the Company carried out dynamic assessment on suppliers and then controlled procurement risks in accordance with the standards for retention, warning, imposing penalties, rectification, terminating contracts and disqualification. In 2018, the Company issued written warnings to 35 suppliers, required 12 suppliers to go through rectifications, and disqualified 81 suppliers for provision of materials and 12 suppliers for provision of full package of varieties. Based on the principle of selecting the superior and eliminating the inferior, in 2018, the Company drew 83 outperformed suppliers in and sifted 97 underperformed suppliers out, and had 218 qualified suppliers as at the end of the year, of which, 24 general suppliers were promoted as strategic or major suppliers and 4 strategic or major suppliers were downgraded as general ones, all signifying remarkable upgrade in the strength of the supplier base.

III. ESTABLISHMENT OF A RESPONSIBLE SUPPLY CHAIN (CONTINUED)

6. Guarded Against Procurement Risks

In order to cope with procurement risks, the Company further designated the main department responsible for procurement, put the management strategies and countermeasures into practice and reinforced monitoring over and early warning of risk indicators, having resulted in appreciable effects in management and control of material risks.

- (1) The Company established a mechanism for communication with suppliers, gave due weight to social risks-related laws and regulations including the national environmental regulations, industry entry requirements, quality management systems, etc., and set up well-established supplier incentive and restraint mechanism.
- (2) The Company formed extensive benchmarking mechanism in cooperation with major peers such as BaoSteel, Wuhan Iron and Steel (Group) Company and Jiangsu Shagang Group Co., Ltd. with the view to deliberating on the updates in the raw material and fuel market, and keeping abreast of the real-time information published on the external sites in a bid to improve the advantages of concentrated procurement and reduce procurement costs.
- (3) The Company proactively expanded the channels for procurement of such key varieties as coal and steel scrap by engaging the best-positioned thermal coal supplier and key steel scrap suppliers in its procurement to enhance its competitive capacity in virtue of the wider approach of procurement. Besides, it also enhanced cooperation with strategic suppliers to scheme for strategic procurement and reinforce supply assurance capability.



IV. MANAGEMENT OF PRODUCT SALES SERVICES

1. Innovated in the Establishment of Marketing Management Systems

The Company built the “1+4+N” marketing model. It optimized the automobile steel operation and management systems, and established the customer-oriented quick response and coordination mechanism, thus achieving the integration of production, sales, R&D and services.

(1) Promoting marketing system reform

The Company sorted through the business authorities of each sales unit comprehensively so as to exert coordinated management over the resources, prices, channels, customers, sales plans and goals of sales. Under the market-based principle, the Company further cemented its advantageous position of the regional companies and the production lines in the market, and expanded its business channels and service scope to gain more profit growth drivers, which had resulted in continuously growing presence and profitability of the regional companies. The Company accomplished integrated management of product variety planning, product appraisal, customer management and liaisons with the plants and regional companies.

(2) Adopting direct marketing and direct supply

In consistent adherence to the philosophy of “expanding direct supply, securing channels and increasing direct marketing”, while retaining the existing direct-supply customers, the Company took initiative to develop more of the kind. It also made great efforts to reach out to the market players, optimize the allocation of resources on hand and scale up the supply of quality commodities in a bid to achieve dynamic supply-demand balance. Thanks to the well-established industry representative mechanism, the sway of technical chiefs and the enhanced EVI service, service efficiency escalated progressively.

IV. MANAGEMENT OF PRODUCT SALES SERVICES (CONTINUED)

1. Innovated in the Establishment of Marketing Management Systems (Continued)

(3) Advancing brand building

With the orientation of polishing the brands of Angang Steel, under the overall leadership of ANSTEEL brand and bearing in mind the “chess game” gist, the Company carried out well-arranged management over the ANSTEEL, TAGAL and AHK brands, gave full play to the significant effect of brand agglomeration and resource integration and made integrated use of the “bring in” and “go out” initiatives to result in “brand driven marketing, and marketing-backed brand”.

(4) Accelerating service upgrading

The Company enhanced tracking of the implementation process of contracts, kept record of detailed contract implementation rate by copies, provided feedback information in a timely manner, and proactively regulated the coordination and communication among the production, logistics and other links to satisfy the needs of customers. In addition, it also continued to implement the estimated contract organization pattern to shorten the product supply cycle.

(5) Enriching the marketing systems

The Company set up a market analysis platform to form a strategic “think tank” that integrated business information collection, information analysis and solution provision. It also made comprehensive use of the “Internet +” and big data platforms to scout out the demands of customers and in turn provide servers with higher quality.



IV. MANAGEMENT OF PRODUCT SALES SERVICES (CONTINUED)

2. Reinforced the Construction of an After-sales Service System

Angang Steel took great initiatives to provide satisfactory customer services following the basic policy of “sticking to the actualities, sufficient authorities, quick response and customer satisfaction”. It proactively coped with customer complaints, took their discontent over products seriously and kept the interested customers informed of the correction measures and results therefrom; collected customer opinions and information for comprehensive analysis, evaluated whether their requirements were satisfied and to what extent and got the relevant units informed of the areas where melioration were required; set a hotline for customers to receive enquiries from customers or forward the same to the departments concerned; and procured relevant departments and production plants to provide customers with technical support and participate in pre-contract technical review.

3. Perfected the Customer Information Protection System

The Company established an information-based customer management system to further improve the customer information protection mechanism. It strengthened the management of customer profiles and strictly observed the confidentiality system in accordance with the principle of “Person in charge responsible for confidentiality (業務誰主管・保密誰負責)”. To effectively protect customer information, the Company adopted certain measures including limiting permission of customer management and disallowing the connection between the sales management system and the Internet. In 2018, no incidents in respect of leakage of customer information occurred.

IV. MANAGEMENT OF PRODUCT SALES SERVICES (CONTINUED)

4. Managed Customer Satisfaction, Addressed Complaints and Paid Return Visits

- (1) Continuous enhancement of the quality and efficiency of complaints treatment

By closely centering on the goal of enhancing customer satisfaction and with the stress laid on the quality and efficiency of complaints treatment, the Company comprehensively utilised various management tools to efficiently improve the response speed for treatment of customer complaints and service quality.

In 2018, the Company received 1,953 customer complaints, of which 1,910 were addressed, respecting an addressing rate of 97.8%.

- 1) Optimising management system on customer complaints and improving service efficiency

In order to satisfy the requirements of market competition, the Company made another round of amendments to the Procedures for Management of Customer Complaints to expand the limit and scope of business authorization and provide system guarantee for service efficiency.

The sales, finance, logistics, product technology and other departments were organized and coordinated to orchestrate and intensify the quantized internal appraisal around the major concern and key areas of customer complaints, thereby fulfilling the service commitments at full stretch.

- 2) Establishing a coordinated and interactive working mechanism to respond to customers' requests

For customers' requests, the Company has established the mechanism for mutual cooperation and interaction among sales departments (including regional sales branches and processing lines), customer service department, plants, technical departments and logistics departments, and vigorously promoted the development of refined services by such means as setting up and improving customer profiles and enhancing identification of customer demands.



IV. MANAGEMENT OF PRODUCT SALES SERVICES (CONTINUED)

4. Managed Customer Satisfaction, Addressed Complaints and Paid Return Visits (Continued)

- (1) Continuous enhancement of the quality and efficiency of complaints treatment (Continued)

- 3) Paying attention to customers' concerns, and prioritizing service work

The Company provided on-site services for key clients in order to gain timely understanding of product quality, promptly respond to customers' requirements.

The objection handling was improved and conducted in a way following closer to the conditions of market and customers. In 2018, 948 customer complaint cases were handled by the regional branches within the reach of their authority.

To facilitate communication with customers, the senior management of the Company regularly visited certain strategic cooperative enterprises including GAC Group, CNPC, FAW Group, Zhuhai Gree, Midea Group and CIMC, and listened to clients' opinion.

- 4) Adopting a question-oriented approach to implement closed-loop management

The Company regularly summarised and concluded representative issues and their orientation as reflected in customer complaints. It also collected company-wide feedback messages on a daily, weekly, monthly and quarterly basis. Production and technology departments actively responded to all queries and requirements from customers, and examined, formulated and implemented corresponding corrective and preventive measures.

IV. MANAGEMENT OF PRODUCT SALES SERVICES (CONTINUED)

4. Managed Customer Satisfaction, Addressed Complaints and Paid Return Visits (Continued)

(2) Management of customer satisfaction

The Company highly valued and continuously regulated the management of customer satisfaction, and the Customer Satisfaction Measurement Procedures (《顧客滿意度測量程序》) were carried out on a continuous basis.

The Company initiated customer satisfaction surveys and evaluations on a regular basis. It conducted survey and evaluation of customer satisfaction twice a year by industries and categories of customers. The survey covers 10 critical elements including product quality, marketing policy and service conditions reported by 529 customers of 14 key industries including petrochemical industry, automobile making, home appliances, military projects and shipping.

The survey indicates that the score of customer satisfaction has maintained over 90 for a number of years. In particular, the score of customer satisfaction for 2016, 2017 and 2018 was 92.43, 93.53 and 93.21, respectively.



I. ENVIRONMENTAL PROTECTION MANAGEMENT SYSTEM AND MECHANISM

1. Environmental Protection Management Principle

Angang Steel's works on environmental protection always adhere to scientific development, duly implement the requirements under PRC laws and regulations, and facilitate a circular economy and clean production. In order to control pollution through governance and management at source, the Company adopts new work process and new technology which will have no pollution or less pollution. With the improvement of environmental protection management system and comprehensive environmental management platform, our works on environmental protection have achieved good result.

2. Establishment of Environmental Protection Management System

The Company organised significant environment factor identification and evaluation, conducted laws and regulations identification and compliance evaluation, and continuously improved the environmental management system as to ensure effective operation. In addition, the Company further improved the overall framework for environmental management, and optimised the three major systems (namely the environmental protection indicator system, the environmental protection supervisory system and the environmental protection accountability system) and the six major factors (namely comprehensive indicator, management and control indicator, supervisory indicator, environmental protection supervision, accountability mechanism and appraisal mechanism). Environmental responsibility system has been prepared to clarify the environmental responsibility of personnel at all levels; the Company amended the environmental management procedures documents in a timely manner based on sufficient identification of newly released laws and regulations, and formulated emergency plans for heavy pollution weather and sudden radiation accidents; the total pollutants indicator, the plant dust reduction indicator and the internal control standards for pollutant discharge of Angang Steel were developed and issued, and assigned to all units to achieve dual control of total amount and concentration, which secures the total pollutants emission control and dust governance of the Angang Steel.

3. Maintenance of the Registered Qualification for Environment System Certification

In 2018, the environmental management system of the Company successfully passed the audit on version change conducted by Beijing Grand Honor Certification Co., Ltd. and obtained the qualification for ISO14001 environmental management system certification.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK

In 2018, there was no significant pollution accident; radioactive sources were safely used and the hazardous waste treatment rate reached 100%; the special dust control was carried out in the plant area, resulting in significant decrease in dust fall in the plant area and obvious improvement of the plant outlook; the environmental protection facilities ran stably, the discharge of pollutants was in line with standards, and the total amount of emissions continued to decrease; the Company obtained the pollutants discharge permit to ensure discharge with permit.

1. Improvement of environmental protection system

In 2018, the Company prepared and issued the Plan on Self-monitoring of Pollutants, Standards on Internal Control of Pollutants Emission and Total Quantity Control Indicators of Pollutants to track and supervise the internal pollutants emissions of the Company, so as to ensure rapid rectification in case of abnormality. Meanwhile, the Company continued to enrich the contents of Environment Monthly Report (《環境質量月報》), aiming to reflect the condition in environmental supervision, pollutant emission and management, environmental management etc., which will provide a basis for decisions of the Company in relation to environmental protection. With the establishment of comprehensive environmental management and information platform, the Company further improved different functions of the “information platform” to achieve networking between the headquarters in Anshan, Bayuquan and Chaoyang Iron & Steel, to give an all-round reflection of the Company’s environmental monitoring, pollution emissions and control, environmental management and other aspects, thus greatly improving the environmental protection informatisation management.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

2. Intensification of the maintenance of environmental protection facilities, and implementing renovation to improve efficiency and meet the standards

In 2018, the advanced wastewater treatment facilities of Xidagou Wastewater Treatment Plant operated stably, which ensured that the treated wastewater discharged through the main drain met the overall emission standards of Angang Steel; the Company prepared and strictly implemented the pollutants monitoring plan and adopted manual monitoring as a supplement to online monitoring to ensure full coverage of pollutants monitoring; 74 online monitoring devices were added in accordance with the new national requirements to ensure real-time monitoring of the emission of pollutants; the Company also enhanced the management and maintenance of environmental protection facilities to ensure their stable operation. Large scale renovation was conducted in terms of flue gas treatment, peculiar smell, noise control, and stock ground dust control with a total investment of RMB2.36 billion. 69 environmental protection and governance projects were approved, of which 14 environmental renovation projects including the coke oven gas desulphurisation and denitration projects at the headquarters in Anshan and Chaoyang Iron & Steel, the three-sintering desulphurization and noise control project, and the dust removal of C19 transfer station of the Main Iron Smelting Plant were completed, and the Company is vigorously organising implementation of other projects; the special dust control carried out thoroughly resulted in a substantial decrease in the dust fall quantity from 19.7t/km² of last year to 14.6t/km², achieving the work goal of 2018.

3. Pollutants discharge

The environmental protection facilities of Angang Steel operated stably and pollutants were discharged according to standards.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

4. Greenhouse gas

The total carbon emissions at the headquarters of Angang Steel increased with the increase of steel output, and the carbon emissions per ton of steel showed a trend of decreasing year by year. The process with the largest carbon emissions is ironmaking, accounting for 27.74%, followed by other auxiliary processes, accounting for 25.68%; and the third is power generation, accounting for 17.56%. The rolling process, sintering process and coking process accounted for 12.14%, 9.35% and 9.28%, respectively. The Company will take further implement energy saving and carbon reduction measures, and clarify the key or priority areas for implementation of emission reduction. At the same time, the Company will improve the collaborative management capabilities in respect of carbon trading and establish a carbon asset management system.

5. Hazardous wastes

Angang Steel entrusted qualified units to dispose of hazardous wastes in compliance with regulations, and a total of 5,300 tons of hazardous wastes are disposed of in compliance with regulations throughout the year.

6. Solid wastes

5,272,500 tons of blast furnace slag, 3,005,000 tons of steel slag, 214,000 tons of coal ash, and 66,500 tons of sewage sludge were produced.

7. Emission reduction measures and achievements

In 2018, Angang Steel implemented transformation for all coke oven desulfurization and denitrification projects, iron-making dust collectors, closed shed for Lingshan stock ground, and other environmental protection facilities, thus improving efficiency and significantly reducing pollutants emission. The amount of sulfur dioxide, nitrogen oxides, and chemical oxygen demand were 9,885.9 tons, 20,863.4 tons, and 127.14 tons, respectively, representing a decrease of 15.4%, 5.4%, and 64.6% as compared to 2017, respectively.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

8. **Methods for treatment of hazardous and non-hazardous wastes and measures for and achievements of wastes reduction**

All hazardous wastes generated by Angang Steel were subject to treatment by qualified units as engaged in accordance with national requirements. Valuable waste resources were recycled or sold according to regulations of the Company. All valueless industrial wastes were discharged into the Heiniuzhuang industrial waste dumping site in Liaoyang County. All domestic garbage was discharged to the designated garbage disposal plant in Anshan City.

9. **Clean production**

Angang Steel continuously implements clean production in the production and management process, rationally utilizes natural resources, and always adheres to the clean production process with low energy consumption, low material consumption and low pollutant production. It always adopts a strict management system to control the production process of products in a scientific and reasonable way to continuously improve the employees' awareness of clean production.

10. **Policies to reduce the Company's significant impact on the environment and natural resources and actions to manage the impact**

Angang Steel thoroughly implemented the green development concept as proposed by Xi Jinping, General Secretary of the Communist Party of China. Centering on "overcoming difficulties in pollution prevention and control", the Company perfected the environmental management system to strictly control environmental risks and formulated environmental responsibility system to clarify the environmental responsibility of personnel at all levels and hold everyone accountable to environment; with intensified training on environmental protection, the environmental awareness and business level of all employees were enhanced; in addition, the Company proactively promoted the transformation of environmental protection facilities to improve efficiency and ensure compliance with standards and strengthened the operation management of existing environmental protection facilities to ensure their stable operation. The transformation of environmental protection facilities to improve efficiency and ensure compliance with standards has given rise to a decrease in pollutant discharge and lowered impact on the environment. No major environmental pollution incident happened with Angang Steel.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

11. Main environmental information

(1) Pollution discharge information

Major Environmental Protection Information of the Company in 2018

Name of company or subsidiary	Name of major pollutants and characteristic pollutants	Discharge method	Number of discharge outlets	Distribution of discharge outlets	Discharge concentration (mg/m ³)	Pollutant discharge standards executed (mg/m ³)	Total discharge (ton)	Approved total discharge (ton)	Excessive discharge
Angang Steel	Chemical oxygen demand	Up-to-standard discharge	1	Plant areas of Angang Steel	Less than 50	50	98.14	280	None
Angang Steel	Ammonia nitrogen	Up-to-standard discharge	1	Plant areas of Angang Steel	Less than 5	5	12.58	—	None
Angang Steel	Particulates	Up-to-standard discharge	337	Plant areas of Angang Steel	Less than 20	20	8,578.4	—	None
Angang Steel	Sulfur dioxide	Up-to-standard discharge	142	Plant areas of Angang Steel	Less than 50	50	7,624.9	8,500	None
Angang Steel	Nitrogen oxides	Up-to-standard discharge	124	Plant areas of Angang Steel	Less than 100	100	14,410	16,980	None

(2) Construction and operation of pollution prevention facilities

In 2018, the Company carried out treatment in the aspects of exhaust gas, peculiar smell, noise, etc., and approved 69 key environmental transformation projects including the shed enclosure of the pellet yard at the Lingshan stock ground, the primary dust removal and upgrading project of the converter of the Main Steel Making Plant, the addition of coal storage silo at the coal yard of the Bayuquan Branch Company. The Company's existing environmental protection facilities are all operating stably and discharge pollutants in accordance with standards.



II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

11. Main environmental information (Continued)

- (3) Environmental impact assessment of construction projects and other administrative licenses for environmental protection

In 2018, the Company successively carried out environmental impact assessment (EIA) on and obtained the EIA approval documents from the government authorities for 33 construction projects including the coke oven flue gas desulfurization and denitrification project of the Main Coking Plant of Angang Steel, the good quality steel rope project, the needle coke project of the Chemical Division and the project of quality upgrade and variety structure adjustment of coal tar processing products.

In 2018, the Company obtained all seven pollutant discharge permits, which satisfy the Company's requirements for production capacity in respect of the amount of pollutants allowed to be discharged, making outstanding contributions to the Company's economies of scale.

- (4) Emergency plan for environmental emergencies

In 2018, the Company formulated the Emergency Plan for Radiation Environment Accidents and Emergency Plan for Heavy Pollution Weather, revised the Emergency Plan for Environmental Emergencies, and conducted emergency drills for environmental emergencies and heavy pollution weather in June and December 2018 respectively.

- (5) Self-monitoring plan on environment

In 2018, the Company issued an environmental monitoring plan in accordance with the relevant national regulations, and carried out self-monitoring of environment in accordance with the monitoring plan on a monthly and quarterly basis.

II. PERFORMANCE OF ENVIRONMENTAL PROTECTION WORK (CONTINUED)

12. Penalty

In 2018, due to the dust problem of Lingshan stock ground, Angang Steel was fined RMB50,000 by the Anshan Environmental Protection Bureau. Angang Steel paid the fine and conducted rectification in a timely manner.

III. CONSOLIDATION OF ENERGY MANAGEMENT

In 2018, centering on the production and operation targets, the Company continued to increase efforts on energy conservation and emission reduction and implemented energy conservation and emission reduction projects to enhance the essential energy conservation and emission reduction capacity of process equipment; it refined energy indicators decomposition and grading management and control, strengthened special benchmarking of energy indicators, and implemented corresponding incentives mechanism. As a result, energy indicators have improved significantly and effectively. In particular, the preparation of the case of social responsibility of central enterprises themed by “care for the needs of masses, shouldering the responsibility of emission reduction” passed the appraisal by the SASAC.

1. Policies on and management methods for effective utilisation of resources including energy, water and other raw materials

According to the national “13th Five-Year Plan” on energy conservation and relevant policies on energy conservation and emission reduction, the Company continued to promote energy conservation and consumption reduction in an effective way, increased investment in energy conservation, and adopted advanced energy conservation technologies to improve energy utilization equipment; while strengthening energy consumption management, the Company continued to adopt differential pricing for energy utilisation and carry out “operation in power valley-value period instead of peak-value period” to control energy consumption; the water system operation mode was optimized to regulate the management and control measures for water utilisation and drainage at fixed time and quantity. The water balance management was intensified to improve water recycling rate, and regular pressurised supply of domestic water and other energy utilization mechanisms were implemented. In 2018, the electricity consumption of the Company was 14,029,510 MWh, with electricity consumption of 536.4 kWh/t per ton of steel. The consumption of coke oven gas, blast furnace gas and converter gas was 62,984,347GJ, 111,991,035GJ and 13,758,463GJ, respectively. Fresh water consumption was 60,090,000 tons with 2.3 t/t per ton of steel. Recycled waste heat and surplus energy was 1.03GJ per ton of steel.



III. CONSOLIDATION OF ENERGY MANAGEMENT (CONTINUED)

2. Energy use efficiency plan and results

In 2018, centering on the production and operation targets, the Company continued to increase efforts on basic management of energy conservation, refined energy indicators decomposition and grading management and control, strengthened special benchmarking of energy indicators, and implemented corresponding incentives mechanisms to promote the energy conservation and cost reduction in a systematic and thorough way. Energy utilization was fully optimized to ensure efficient energy operation and tiered, economic and adjustable supply by qualities. The Company broadened channels to increase sales of energy and enhanced the profitability of external sale of heating with waste heat water, low-temperature liquid and gas. While optimizing systematic measures for energy cost reduction, it implemented energy conservation and cost reduction projects and exploited potential for consumption reduction to promote obvious improvement and effective enhancement of energy indicators. Meanwhile, the Company strengthened its energy saving supervision and management, and encouraged all employees to participate energy saving supervision and management, thereby facilitating rational and effective energy consumption and in turn effecting energy conservation, to reduce energy waste and loss. In 2018, considerable progress and improvement were made in respect of comprehensive energy consumption per ton of steel, fresh water consumption per ton of steel and recycled waste heat and surplus energy as well as other energy indicators and some were their historical best. Comprehensive energy consumption was 570kgce/t per ton of steel, down by 4.0kgce/t year on year. Electricity consumption was 536.4kWh/t per ton of steel, representing a year-on-year decrease of 16.6kWh/t. Fresh water consumption was 2.3 t/t per ton of steel, which reduced by 15% year on year, representing the leading standards among key steel enterprises in China. Self-generated power was 4,929 million kWh, which increased by 282 million kWh or 6.1% as compared with the prior year.

III. CONSOLIDATION OF ENERGY MANAGEMENT (CONTINUED)

3. Water Utilisation and Result of Water Utilisation Efficiency Enhancement

In 2018, we further improved the utilization level of water resources, optimized production organization, and strengthened the management of indicators and water balance; due to the consolidation of the domestic water, fresh water, and clean recycled water system operation mode and standardization of dispatching and control technologies, the total water consumption and other indicators were controlled at the best level; the Company regulated the water consumption and drainage of all processes and promoted water conservation and emission reduction of the processes through setting new water consumption limit for each process and benchmarking to standards in the industry; to strengthen water balance management, timed and quantitative management and control was implemented over water replenishment and drainage for systems of the units, and the Company strengthened anticipation of changes in water drainage due to overhaul in each production line so as to ease the impacts of water utilization fluctuation and heavy water drainage from overhaul on the systems, rationally regulate water amount balance in systems and reduce outward water discharge; it also enhanced management over concentration times of circulating water and the average concentration times of the circulating systems were above 2.5 in 2018, thus guaranteeing water consumption ratio and realizing a cyclic water utilization rate of more than 98.5%; While standardizing water quality management, the Company promoted the advancement of water treatment technologies to reduce the consumption of fresh water: to achieve the goal of operation with the most favourable water treatment technologies and the lest costs, the Company implemented the concept of water quality system management with the focus placed on the key aspects, difficulties and key influence factors of the water system; upon transformation, Xidagou desalted water station had a better treatment capacity and can recycle more waste water. The dynamic adjustment to the water source structure and the amount of outer drainage reduced taking fresh water.

The Company further advanced scientific and technological innovation and strengthened data reserves. Data analysis was conducted regularly through scientific and technological means to guide system's operation in an economical way, to ensure water supply quality and safety and meet production needs.



III. CONSOLIDATION OF ENERGY MANAGEMENT (CONTINUED)

4. Energy conservation and emission reduction projects and green manufacturing projects

- (1) The project of scientific research on energy conservation and emission reduction was implemented to enhance the intrinsic energy conservation and emission reduction capabilities

The Company always regards energy conservation and emission reduction and green manufacturing as key research and development strategies. In 2018, the Company transformed the technological achievements of oxygen-enriched combustion for 10# blast-furnace hot blast stove, resulting in a decrease in the exhaust gas temperature by 10℃ and energy conservation of 5.21%. The optimization of operating parameters of lattice brick for hot air furnace and cold air diverter raised the hot air temperature of the 4# hot air furnace of 11# blast furnace by over 30℃. In addition, the Company completed the transformation of energy-saving technology for the blast furnace gas diffusion tower at Bayuquan and removed the eternal fire of coke oven gas. After the pilot test of reverse osmosis concentrated brine and optimization of parameters of all modules, the recovery of high pressure reverse osmosis concentrated brine reached 93.3%, the conductance was 78.6–85.7 μ s/cm and the COD was less than 10mg/L. As the Company developed the concentrated brine reduction process, the water quality met the recycling requirements. In the research of dust removal technology with a high content of alkali metal and the dust removal technology with a high content of chlorine element, the Company developed the recycling process program and the technology for removal of dust and hazardous elements. Moreover, the Company completed the design of overall process program and technical and economic assessment and submitted the industrial implementation suggestions.

III. CONSOLIDATION OF ENERGY MANAGEMENT (CONTINUED)

4. Energy conservation and emission reduction projects and green manufacturing projects (Continued)

- (2) Implementation of energy conservation management measures and energy conservation results

In 2018, upholding the concept of green development, the Company implemented contract management of energy conservation and endeavoured to conduct innovation in respect of new energy management. The energy conservation was continuously carried out through a series of works including carbon emission verification, inspection of process energy consumption, energy efficiency evaluation of key energy-using equipment, special energy supervision, etc. In the practice of promoting energy benchmarking, Angang Steel established channels for deeper benchmarking communication with domestic advanced steel enterprises including BaoSteel and Shagang. Internally, Angang Steel organized alignment for production lines based on the “three-place alignment” platform and realized overall energy management and efficient interaction of the “headquarters in Anshan, Bayuquan and Chaoyang” under the guidance of energy conservation concept, energy conservation system and energy conservation indicators. The Company increased technology introduction and investment in transformation in the field of energy conservation and expanded the way of waste heat recycling, achieving outstanding results in terms of pollutants removal, emission reduction, and energy consumption reduction. Due to the advancement of energy conservation and efficiency in an all-round way by Angang Steel, in 2018, the steel segment achieved energy savings of 105,000 tons of standard coal, representing a year-on-year increase of 97,400 tons of standard coal.

Chapter VI Public Relations and Charity Activities

In adherence to the philosophy of “serving the community in the capacity of enterprise (立足企業、面向社會)”, the Company promoted the volunteer spirit of “dedication, love, mutual assistance and progress” by virtue of the activity of learning from Guo Mingyi to fulfill its social responsibilities and widely conducted youth volunteer service activities, which generated positive social influence.

1. BUILDING A VOLUNTEER TEAM

Leveraging “Gou Mingyi Youth Volunteer Team (郭明義青年敬業奉獻團隊)”, organisations at different levels of the Company proactively conduct activities under the theme of “Learning Lei Feng’s Spirit from Guo Mingyi (跟著郭明義學雷鋒)”. Organisations at different levels organised 901 youth volunteer activities, with 8,906 person-head youth participated.

- (1) Building a volunteer service team. Based on the “Love Foundation” for league cadres, a “Dedication of Love” long-term mechanism was set up to help the extensive league cadres to gain the lofty character of helping others to make dedication of love become a habit. Ever since the establishment of the “Love Foundation”, a total of over RMB30,000 has been raised.
- (2) Building a green homeland. Bayuquan Iron & Steel Branch Company carried out the activity themed by “protection of ecological environment, joint guard of the blue sea and sky” in which 200 members of Guo Mingyi Love Team were organized to conduct thorough clearance of rubbish on the beach at Shanhai Square, which was spoken highly of by local masses and fully demonstrated the good image of employees of Angang Steel. In addition, the Company organized over 200 youths to conduct landscape clearance and maintenance for Zhuoxiu Garden.
- (3) Building a beautiful community. The youth league committee of the Company organized over 300 young volunteers to conduct cleanup for Angang Elderly Cadre Service Center (鞍鋼老幹辦迎賓服務中心), Angang Elderly Cadre University (鞍鋼老幹部大學) and gerocomium. During the campaign, 8 activity rooms and 290 indoor and outdoor windows were cleaned and the area of cleaned floor was over 2,000 square metres.



Chapter VI Public Relations and Charity Activities (Continued)

2. ENHANCING THE CONSTRUCTION OF COMMUNITY RELATIONS

All units were organized to intensively launch the “Learning Lei Feng’s Spirit from Guo Mingyi (跟著郭明義學雷鋒)” activity involving nearly 9,000 cadres and employees to build beautiful plant areas, serve the environment of community and help the needy people. The Company carried out the activity in memory of the 60th anniversary of Lei Feng’s commencement of work at Angang Steel and prepared 20 stories of nearly 40,000 words on Lei Feng when he was in Angang Steel; the Team of Learning Lei Feng’s Spirit was organized to serve the community to enhance the influence and durability of the activities of learning Lei Feng’s Spirit. Fang Hongjin, an old Party member retired from Main Coking Plant, was included in the List of Chinese Good Fellows for November. After retirement, he proactively participated in the work to take care of the next generation. He personally donated RMB42,000 and funded 68 poor children.

The Company strengthened the protection of heritage and integration with urban communities. It undertook the ninth Academic Forum of Industrial Heritage and more than 180 experts and scholars from 3 ministries or commissions, 6 countries, and 70 higher education and academic institutions attended the forum held at Anshan, to enhance the protection of industrial heritage of Anshan Steel. In addition, the Company also undertook the press conference for the industrial and cultural heritage of central enterprises (metallurgy and iron & steel industries) and the colloquia on protection, development and utilization of industrial and cultural heritage and the representatives from 4 ministries and commissions and 21 central enterprises attended the colloquia at which the Company introduced its experience and was regarded as the working model for central enterprises. The Company was rated as a national industrial heritage protection unit by the National Cultural Heritage Administration.

3. PROMOTING JINQIU EDUCATION

In 2018, Angang Steel Company Limited provided Jinqiu Education grants of RMB69,500 to 43 students from poverty-stricken families via the “Jinqiu Education” activities.



4. PROCEEDING WITH TARGETED POVERTY ALLEVIATION

In 2018, in close compliance with the targeted poverty requirements of the central committee of the Party and the State Council, Angang Steel Company Limited pushed ahead the targeted poverty alleviation and removal work to assume its corporate social responsibility as an enterprise in an orderly manner in consideration of the actual situation of the enterprises and the aiding areas and played a positive role in promoting the development of local economic and social undertakings.

(1) Targeted poverty alleviation plan:

First, the Company strengthened the study of policies on targeted poverty alleviation to enhance political position and understand the spirit of the central government. Second, it strengthened the organization and leadership of poverty alleviation and implemented poverty alleviation organization system and responsibility system. Third, it prepared a good top-level design and poverty reduction plan and improved the management system to ensure standard standardised operation in poverty alleviation. Fourth, the Company strengthened investigation and research and accurately deployed poverty alleviation. Goal: to assist counties, towns (townships) and villages to proactively carry out poverty alleviation in order to achieve the goal of poverty alleviation for the assisted areas in 2018 to 2020.

(2) Results of targeted poverty alleviation:

In 2018, the funds of Angang Steel were mainly used to subsidize: Jianchang County, Liaoning Province, Shihuiyao Town (Village), Xiuyan County, and Shangtao Village, Chaoyang City. Angang Steel implemented 16 poverty alleviation projects and invested RMB6.273 million in poverty alleviation, representing an increase of RMB3.273 million over the poverty alleviation funds of RMB3 million planned at the beginning of the year and a completion rate of 209.1%. The Company has made a great contribution to the progress goal of completing targeted poverty alleviation for the counterpart units.

4. PROCEEDING WITH TARGETED POVERTY ALLEVIATION (CONTINUED)

(2) Results of targeted poverty alleviation: (Continued)

- a) Poverty alleviation photovoltaic power plant projects in Jianchang County. The Company sent special personnel to Jianchang County for on-the-spot investigation and research, and negotiated with the local poverty alleviation office to make full use of the national policies enjoyed by Jianchang County and the local natural resources advantages. After in-depth research and discussion, the Company invested RMB2 million in building two village-level poverty alleviation photovoltaic power stations in Tianzenglong Village and Xingchengyong Village in Jianchang County. The construction of the projects commenced in September 2018 and the projects were completed and connected to the power grid power generation by the end of December, realizing effects in the same year of investment. The projects can help 260 registered poverty-stricken households in 5 surrounding villages to alleviate poverty. According to preliminary estimates, the annual average income per household could increase by more than RMB1,000. As a result, the villagers sent a pennant as an award.
- b) The Company conducted disaster relief in a timely manner and cared for the masses by helping them in emergencies. It vigorously repaired and reconstructed the roads ruined by flood and submersible bridges in Shihuiyao Town to guarantee passage as soon as possible. In August, Shihuiyao Town in Xiuyan County was seriously hit by the heavy rainfall. Upon receipt of the call for help, the Company immediately carried out the repair and reconstruction work for the roads ruined by flood, submersible bridges and other facilities in Shihuiyao Town and used 19 sets of machinery and equipment for rescue in 11 days and also purchased 708 tons of cement for repair of the collapsed and damaged houses of the affected residents. The expenditure incurred by the Company in the abovementioned aspects is equivalent to RMB620,000. As a result, the Shihuiyao Town government sent a letter of thanks on behalf of all villagers to thank us for the warmth and hope brought about by the “Steel Spine”!

4. PROCEEDING WITH TARGETED POVERTY ALLEVIATION (CONTINUED)

(2) Results of targeted poverty alleviation: (Continued)

b) (Continued)

Indicator	Unit	Number/ progress
I. Overview	–	–
Including: 1. Capital	RMB'0,000	627.3
2. Supplies converted into cash	RMB'0,000	
3. Number of archive impoverished population casting off poverty	Person	1,518
II. Subentry	–	–
1. Poverty alleviation through industrial development	–	–
Including: 1.1 Type of industrial development projects for poverty alleviation	– Village collective economy	
1.2 Number of industrial development projects for poverty alleviation	Item	6
1.3 Capital invested in industrial development projects for poverty alleviation	RMB'0,000	314
1.4 Number of archive impoverished population casting off poverty	Person	868
2. Poverty alleviation through allopatriic employment	–	–
Including: 2.1 Capital invested in occupational skill trainings	RMB'0,000	
2.2 People attending occupational skill trainings	Person-time	37
2.3 Employment of archive impoverished population	Person	2
3. Poverty alleviation through resettlement	–	–
Including: Employment of relocated households	Person	
4. Poverty alleviation through education	–	–
Including: 4.1 Capital contributed for aiding impoverished students	RMB'0,000	
4.2 Number of students receiving financial aid	Person	
4.3 Capital contributed for improving educational resources in poverty-stricken areas	RMB'0,000	1
5. Poverty alleviation from the perspective of hygiene	–	–
Including: 5.1 Capital invested in medical and health resources in poverty-stricken areas	RMB'0,000	
6. Poverty alleviation from the perspective of ecological protection	–	–
Including: 6.1 Type of project	–	
6.2 Capital contributed	RMB'0,000	

Chapter VI Public Relations and Charity Activities (Continued)

4. PROCEEDING WITH TARGETED POVERTY ALLEVIATION (CONTINUED)

(2) Results of targeted poverty alleviation: (Continued)

b) (Continued)

Indicator	Unit	Number/ progress
7. Bottomlined guarantee	–	–
Including: 7.1 Capital for “staybehind” children, elderly and women	RMB’0,000	
7.2 Number of “staybehind” children, elderly and women getting help	Person	
7.3 Capital for the disabled in difficulties	RMB’0,000	
7.4 Number of the disabled in difficulties getting help	Person	
8. Social poverty alleviation	–	–
Including: 8.1 Capital contributed for collaborative poverty alleviation in eastern and western regions	RMB’0,000	
8.2 Capital for targeted poverty alleviation work	RMB’0,000	
8.3 Capital donated to poverty alleviation-related charity funds	RMB’0,000	
9. Others	–	–
Including: 9.1 Number of projects	Item	10
9.2 Capital contributed	RMB’0,000	312.3
9.3 Number of archive impoverished population casting off poverty	Person	650
III. Awards (nature and class)	–	–

(3) Targeted poverty alleviation plan for the next year

To assist counties, towns (townships) and villages to proactively carry out poverty alleviation in order to achieve the goal of poverty alleviation for the assisted areas in 2018 to 2020. Following the principle of “creating profitability” supplemented by “assistance”, the Company will focus on selecting high quality poverty alleviation projects to improve the endogenous power for poverty alleviation and help local governments register 3,362 impoverished households and get rid of poverty for 11,762 people in 2019.



4. PROCEEDING WITH TARGETED POVERTY ALLEVIATION (CONTINUED)

(3) Targeted poverty alleviation plan for the next year (Continued)

The year 2019 is the 70th anniversary of the founding of the People's Republic of China and is critical for the success in poverty alleviation. We have to work hard steadily and comprehensively implement the important discourse on poverty alleviation by Xi Jinping, General Secretary of the Communist Party of China. We will cooperate with the impoverished areas assigned to the Company to jointly help the counterpart areas achieve the grand goal of poverty alleviation by 2020 and to make new and more contributions.



Conclusion

Since 2008, the Company has been publishing annual social responsibility reports, which truly, objectively disclosed the Company's performance in fulfilling its social responsibilities. With the mission of "making better materials and creating a better life", the Company earnestly adheres to the tenet and idea of assuming social responsibility and has established the "image of pioneer, world brand" of Angang Steel. It has safeguarded interests and rights of the shareholders, debtors, employees, suppliers, customers and consumers and maintained coordinated and harmonious development with the society in terms of environmental protection and sustainable development as well as public relations and public welfare undertakings. For certain problems discovered by the Company during the preparation of the report, we will solve them in the future work. In 2019, the Company will continue to deepen the concept of social responsibility and improve the Company's work in respect of social responsibility to faithfully fulfill its corporate social responsibility and thoroughly implement the spirit of the important speech delivered by Xi Jinping, General Secretary of the Communist Party of China, at the colloquia on revitalization of the northeast China. To "consistently strengthen Party building", the Company will focus on customers' needs and forge ahead to conduct reform and innovation and accelerate the high-quality development of the Company, striving to become the most competitive flagship iron & steel enterprise in the industry and start a new journey and achieve a new leap in a more open, sentimental and efficient way, with a view to becoming the most competitive flagship iron & steel enterprise in the industry.

The board of directors
Angang Steel Company Limited

18 March 2019



鞍 鋼 股 份 有 限 公 司
ANGANG STEEL COMPANY LIMITED*