Create Value For

Shareholders, Customers, Employees And The Society

ANSTEEL

ANSTEEL GROUP CORPORATION SUSTAINABILITY REPORT 2012

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SUSTAINABILITY REPORT 2012

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About the Report

Scope of the Report

With Ansteel Group Corporation (referred to as “Ansteel Group” or “Ansteel”) as the subject, the report covers Anshan Iron and Steel Group Corporation (referred to as “Anshan Iron and Steel”) and Pangang Group Company Ltd. (referred to as “Pangang”) as well as their non-steel industry sectors, business divisions and other affiliated entities. The report discloses the management issues of social responsibility implementation and sustainable development as well as operational performance of Ansteel Group. The data included in the report is as of December 31, 2012. With a view to familiarizing stakeholders with the progress in terms of social responsibility implementation and sustainable development of Ansteel Group, this report discloses the actual data of the past 3-5 years. The report is an annual report.

Main Referenced Standards of the Report

Guiding Opinions on the Implementation of Social Responsibility of State-owned Enterprises Supervised by the Central Government issued by State-owned Assets Supervision and Administration Commission of the State Council (SASAC).

Guidelines on Sustainable Development Report (2006) issued by Global Reporting Initiative (GRI).

ISO26000 published by International Organization for Standardization.

Preparation Guidelines of Social Responsibility Report of Chinese Enterprises (CASS-CSR2.0) issued by Chinese Academy of Social Sciences.

Guidelines on Social Responsibility of Chinese Industrial Enterprises and Industrial Associations (GSRI-CHINA2.0) issued by China Federation of Industrial Economics

Quality Assurance of the Report

The financial data included in this report conforms to *Accounting Standards for Enterprises* and relevant accounting systems promulgated by the government and is subject to auditing in accordance with Internal Audit Standards of China, thus being a real indicator of financial index and operational conditions of the Corporation. The financial data in the report is in the unit of CNY unless otherwise stipulated. The report has been internally audited and a grading institute of social responsibility report has been invited to give advice and comments on the report, which ensures the authenticity, accuracy and completeness of the report.

Access to the Report

This report will be published in two forms: print and online, and the online report will be accessible at the Ansteel Group Corporation’s website (http://www.ansteel.cn).

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Leadership's Message

Zhang Guangning, Chairman & Secretary of the Party Committee, Ansteel Group Corporation

Chairman's Message

To Ansteel Group Corporation, 2012 was an important year to continue implementing the "The Twelfth 5-Year" Plan and a year to unite and overcome difficulties in face of unprecedentedly grave situations. Over the past year, the economic situations at home and abroad were rather complicated. There was no fundamental change in the tough situation of -over capacity, high costs and low profits in the iron & steel industry, while it was a constant state of the industry to operate in meager profits and even net loss. In such complex and volatile economic situation with increasingly fierce market competition, employees of Ansteel Group Corporation worked together to surmount obstacles fighting the tough battle of reducing and controlling losses, increasing profits with an iron will, collective wisdom and efforts, achieved new development in plight.

In 2012, Ansteel Group Corporation put forward and carried forward the working approach – implement "Three-Step" strategy, develop "Four Activities", establish "Six Development Concepts" and finally realize "One Goal" – in work, which facilitated the battle of reducing and controlling losses, increasing profits and haltered the downturn trend in economic efficiency. In the single month of December, Anshan Iron and Steel, one of the two regional corporations of Ansteel Group Corporation, took the lead to turn from deficit into profit. And in full year, Ansteel Group Corporation reduced losses successfully by large margin, which vastly stirred up the employees' confidence.

In 2012, Ansteel Group Corporation stuck to technical innovation, focused on developing the new product series characterized by "Ultra-thin, Ultra-wide, Extra-thick and Large Unit Weight", and made breakthrough in the research and development of steel used in industries like automobile, nuclear power, energy, ship, petroleum, railway, home appliance and electrical engineering, etc.. The second-generation automotive steel and the series steel used in nuclear reactors were led by technology, and the various properties of the steel used in the polar icebreaker reached the international advanced level. The Corporation won 3 second-class prizes of National Prize for Progress in Science and Technology and 34 prizes either of provincial level or being industrial prizes for progress in science and technology.

In 2012, Ansteel Group Corporation adhered to the philosophy of production & operation and further reform being intensified with equal endeavor and founded Ansteel Group Corporation Preparation Council and the leading group as well as 10 professional panels for the preparation and operation of regional affiliates. We improved the corporate governance structure and officially established the Ansteel Group Corporation Board of Directors. We integrated the informational and financial businesses cross regions. And we developed the activity of improving management, investigating Baosteel Group Corporation and Shagang Group, expanding the market in Guangdong and conducting study exchanges with China Steel Corporation in Taiwan, which contributed to the obvious increase of working efficiency and execution power.

In 2012, Ansteel Group Corporation adhered to the green development pattern with a 1.88% decrease in the comprehensive energy consumption per ton of steel and a 3.45% decline in fresh water consumption per ton of steel and ascended a higher level in energy conservation and emission reduction. We carried forward the corporate culture and brought further the campaign of following Guo Mingyi as the example, who was conferred on the honorary titles of "Lei Feng of Modern Times" and "Honorary Ambassador of National Enterprise". In the spirit of "Ansteel Constitution", we organized events of "making proposals" and "querying the corporation online" and created the great atmosphere of employees' active involvement in management, scientific and democratic decision-making and a corporation full of vigor and vitality.

To look into 2013, imbalance, discordance and non-sustainability of the global economy remain acute problems, and the iron & steel industry will also be faced with new risks and challenges. However, none of the above will shake the values firmly held by Ansteel employees or hinder Ansteel Group Corporation from creating values for shareholders, customers, employees and the society. Ansteel Group Corporation will shoulder the historical responsibility to lead the development of China's iron & steel industry, firmly stick to the grand objective of growing into the most competitive transnational steel group in the world and the leader in China's iron & steel industry, optimize restructuring, quicken the pace of becoming stronger and better, and resolve to triumph in the battle of reducing losses and increasing profits to make greater contribution to build a well-off society in an all-around way!

Zhang Xiaogang, President of Ansteel Group Corporation

President's Message

In 2012, Ansteel Group Corporation, in a faithful adherence to the Scientific Outlook on Development and with a sense of responsibility to build China into a steel power, actively responded to the complicated and challenging situation, quickened the pace of restructuring, took efforts to ensure the stable operation of production and management, and enhanced the capability of performing social responsibility in all aspects.

In the past year, in order to address the grim situation, Ansteel Group Corporation vigorously promoted reform and innovation, promoted its competitive advantage, implemented the measures of reducing and controlling losses and increasing profits and achieved the momentary results. The cross-regional, multi-base and international development pattern became mature, and the advantages in resource, scale and coordination were increased gradually. We carried out the resource support strategy with efforts, strengthened and enlarged our own mining, and increased the raw material self-supply rate. The plan of reconstruction and expansion of the iron ore mine of Ansteel obtained a state approval; and the joint-venture project of Karara Iron Ore with the Australian Gindalbie Metals Ltd. was getting into its stride. To promote the integral operation of the Group, Ansteel Group Corporation Preparation Council and the leading group as well as relevant organizations for the preparation and operation of regional affiliates were founded and efforts were made to actively step up the reorganization of the Ansteel Group Corporation Headquarters.

In the past year, Ansteel Group Corporation promoted energy conservation and emission reduction, forged green iron and steel and tried to become the advocator and practitioner of the green iron & steel industry chain. The world's first ever mixed injection of coke oven gas and coal dust into blast furnace marked Ansteel's position at the forefront on an international basis in terms of its energy-saving and emission-reducing technology of blast furnace steel-making. Resource-based emerging industry – metallurgical slag recycling boasted an edge on the globe; the technology of waste heat recovery from hot metal desulfurization residue was developed for heating uses in winter; and 180,000 tons of new green environment-friendly products - micro powder of mineral waste residues were used in the construction of the Hong Kong-Zhuhai-Macao Bridge. Five metallurgical slag treatment technologies and the research and development project of high added-value products were compiled into the national "The Twelfth Five-year Plan" of metallurgical solid waste utilization. The wind power generation and photovoltaic power generation project in Bayuquan was completed and started to generate electricity. The renovation of belt dust removal system of the Vanadium Coal Plant and the renovation of waste heat boiler of the Steel-making Plant of Pangang as well as other projects were implemented and as a result 27,800 tons of standard coal was saved annually. With the implementation of the Blue Sky Project, the fuel gas desulfurization project of sintering machines was put into operation with desulfurization capacity increased by more than 5,000 tons in a year.

In the past year, much was done by Ansteel Group Corporation to reinforce the construction of enterprise culture and spiritual civilization. The leading role and brand effect of the advanced model like Guo Mingyi, "Lei Feng of Modern Times" enhanced the soft power of the Group, infused new connotation to the enterprise spirit and culture and demonstrated the relentless pursuit of Ansteel Group Corporation in an attempt to become the practitioner of the social responsibility and the impeller of a harmonious society. With the target to level up the happiness index of employees, we endeavored to provide a safe and comfortable working and living environment. We strengthened the talent training in management, technical expertise and high technique and organized the medical examination for employees on a regular basis. We developed the large-scale "Sending Warmth to Thousands of Households" visit activity by party members and cadres and participated in many public benefits activities such as donation to disaster-stricken areas and assistance and help to the people in need.

2013 is of great significance in Ansteel Group Corporation's battle over loss. On the way ahead of us, opportunities will come alternately with difficulties. We are acutely aware of that and equipped with the confidence and courage to brave greater challenge and beat it. We will stick to non-stop reform and innovation, increase the general power of Ansteel Group, and create value with higher quality and efficiency for shareholders, customers, employees and the society.

CHAPTER 01
Profile

Introduction
Corporate Leadership
Organization Structure
Social Responsibility Management

Introduction

Ansteel Group Corporation was established on the reorganization of Anshan Iron and Steel Group Corporation and Pangang Group Company Ltd. in May 2010. In 2012, Ansteel Group Corporation worked its way onto the Fortune 500 list and ranked 462. Hailed as the "cradle and the oldest son of the Chinese steel industry", Anshan Iron and Steel Group Corporation was the first steel conglomerate whose production was resumed and the first steel production base that was built after the founding of the People's Republic of China. Pangang Group Company Ltd. is China's largest and the world's second largest vanadium production company as well as the China's largest production base of titanium raw material and an important production base of titanium dioxide and steel & seamless steel tube used in railway. Ansteel Group Corporation has now formed a multi-base and cross-regional internationalized development pattern. Ansteel Group Corporation owns three bases in northeast China, Anshan Iron & Steel Base, Bayuquan Iron & Steel Base and Chaoyang Iron & Steel Base respectively, and it has production bases in Panzhihua, Chengdu, Jiangyou, Xichang and Chongqing in southwest China. In north China, it organized Tianjin Ansteel Cold Rolled Sheet Co., Ltd. in Tianjin. The plan of its reorganization with Fujian Sangang (Group) LLC in Southeast China was approved by the Ministry of Industry and Information Technology and the cold-rolling project in Putian has been completed and commenced production. Ansteel Group Corporation boasts a complete series of products, including hot rolled sheets, cold rolled sheets, galvanized sheets, color-coated sheets, cold-rolled silicon steel, heavy rails, seamless steel tubes, wire rods and steel ropes, etc, as well as the world leading vanadium base and China's largest titanium base.

The reorganized Ansteel Group Corporation holds two regional subsidiaries, namely Anshan Iron and Steel Group Corporation and Pangang Group Company Ltd., has established non-steel industry sections including finance, information industry, chemical industry, etc. and business division, and owns technical research & development and educational training institutions. Anshan Iron and Steel Group Corporation now has a total of 32 wholly-owned holding subsidiaries and affiliated entities. Pangang Group Company Ltd. has 11 wholly-owned holding subsidiaries. Ansteel Group Corporation has a total of 216,200 employees, of whom 192,600 are on the job. Ansteel Group Corporation produced 31.3257 million tons of iron, 30.2424 million tons of crude steel, 28.8546 million tons of finished steel, 22,500 tons of high-vanadium steel and 96,000 tons of titanium powder in 2012, earning a business income of RMB 148.825 billion.

Key Performance Indicators in 2012

It is an iron & steel corporation dedicated to sustainable development

Ansteel Group Corporation produced 31.3257 million tons of iron, 30.2424 million tons of crude steel, 28.8546 million tons of finished steel, 22,500 tons of high-vanadium steel and 96,000 tons of titanium powder in 2012, earning a business income of RMB 148.825 billion.

In 2012, Ansteel Group Corporation produced

Iron	31.3257	million tons
crude steel	30.2424	million tons
steel products	28.8546	million tons
high vanadium ferroalloy	22,500	tons
titanium pigment	96,000	tons

Registered a business income

148.825 billion

Technical innovation increases the core competence of the Corporation

In 2012 Ansteel Group Corporation won 3 second-class prizes of National Prize for Progress in Science and Technology and 34 prizes of provincial and industrial Prize for Progress in Science and Technology, and gained 1145 domestically granted patents and 9 granted patents from abroad.

National Prizes for Progress in Science and Technology

3

Provincial and industrial Prizes for Progress in Science and Technology

34

Domestic authorized patents

1,145

Foreign authorized patents

9

Awards won at the 7th International Invention Exhibition

39

Proportion of new products

24.09%

Green iron & steel is not only a commitment, We are taking action

Ansteel Group Corporation adhered to a green development pattern with a 1.88% decrease in the comprehensive energy consumption per ton of steel and a 3.45% decline in fresh water consumption per ton of steel, reaching the phased goal of the energy-saving, low-carbon action in the "The Twelfth Five-Year Plan".

Decrease in comprehensive energy consumption per ton of steel on a YoY basis

1.88%

Decrease in fresh water consumption per ton of steel on a YoY basis

3.45%

Decrease in the emission of sulfur dioxide on a YoY basis

5.5%

Decrease in the emission of COD on a YoY basis

16.4%

It inherited and carried forward the spirit of "Ansteel Constitution", pooling the collective wisdom and efforts

In 2012 Ansteel Group Corporation launched the campaign of "Online Advice for the Corporation" receiving 14,176 comments and suggestions and developed the activity of "Making Proposal" producing 8,358 suggestions.

Comments and suggestions proposed in the campaign of "Online Advice for the Corporation"

14,176

Suggestions in the activity of "Making Proposal"

8,358

Feasible suggestions

33,340

Corporate Leadership

Board of Directors

NO.	Name	Position of the Director
1	Zhang Guangning	Chairman
2	Zhang Xiaogang	Director
3	Yin Li	Worker Director
4	Su Wensheng	Director
5	Zhang Changfu	Outside Director
6	Zhang Hongbiao	Outside Director
7	Fan Yingjun	Outside Director
8	Zeng Yukang	Outside Director
9	Dai Deming	Outside Director

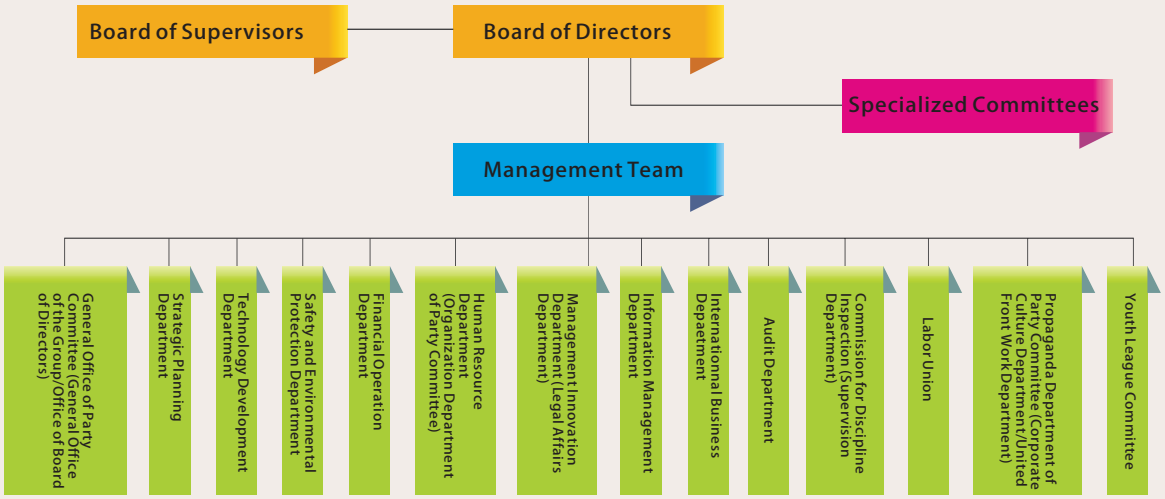
The Board Members' Positions in Specialized Committees

Name of the Specialized Committee	Convenor	Names of Members	
Strategic and Risk Management Committee	Zhang Guangning	Zhang Xiaogang Zhang Hongbiao	Zhang Changfu Fan Yingjun
Nomination Committee	Zhang Guangning	Zhang Changfu	Zhang Hongbiao
Remuneration and Appraisal Committee	Zeng Yukang	Zhang Changfu Fan Yingjun	Zhang Hongbiao Dai Deming
Audit Committee	Dai Deming	Zhang Changfu Fan Yingjun	Zhang Hongbiao Zeng Yukang

Senior Management

NO.	Name	Position
1	Zhang Guangning	Chairman & Secretary of the Communist Party Committee, Ansteel Group Corporation
2	Zhang Xiaogang	President & Deputy Secretary of the Communist Party Committee, Ansteel Group Corporation
3	Yin Li	Deputy Secretary of the Communist Party Committee & Chairman of the Labor Union, Ansteel Group Corporation
4	Tang Fuping	Member of the Party's Standing Committee & Vice President, Ansteel Group Corporation
5	Yang Hua	Member of the Party's Standing Committee, Ansteel Group Corporation
6	Yu Wanyuan	Vice President& Chief Accountant, Ansteel Group Corporation
7	Yao Lin	Member of Party's Standing Committee & Vice President, Ansteel Group Corporation
8	Chen Ping	Vice President, Ansteel Group Corporation
9	Yu Zisu	Member of the Party's Standing Committee & Vice President, Ansteel Group Corporation
10	Bai Jingpu	Vice President, Ansteel Group Corporation
11	Su Wensheng	Member of the Party's Standing Committee & Secretary of Commission for Discipline Inspection, Ansteel Group Corporation
12	Zhang Jinggang	Secretary of Board of Directors, Ansteel Group Corporation

Organization Structure



Social Responsibility Management

Improving the Social Responsibility Management System

Abiding by its corporate mission of "taking it as its own duty to build a powerful country by developing the steel industry and creating value for customers, employees, shareholders and the society", Ansteel Group Corporation integrated the work marked by social responsibility into the corporate development strategy and discomposed social responsibility indicators and implemented them in all aspects of the corporate

production and operation to realize the comprehensive integration of fulfilling social responsibility and corporate production and operation. Meanwhile, in accordance with the requirements on corporate social responsibility work made by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), it carried out benchmarking with the model enterprise that did better in social responsibility in the industry with the benefit from the management improvement activity to enrich and perfect its indicator system of corporate social responsibility and sustainable development and improve the capability of fulfilling social responsibility.

Establishing a Report Review System

In terms of social responsibility and sustainable development work, the internal review system was strengthened and its corresponding indicators were incorporated into the performance assessment system on the base of which internal examinations were duly carried out. The matters and data revealed in the report were reviewed by business directors and review team of Ansteel Group Corporation according to the management procedure. Meanwhile, Corporate Social Responsibility Research Institution graded and guided the report from the aspects of completeness, substantiality, balance, comparability, readability and innovation to ensure the quality and standard of the report.

Establishing a Report Release System

Ansteel Group Corporation established a report release system featuring clear division of management responsibility, optimized business process, organized work system, sound organizational system, strict supervision and evaluation, and detailed and complete report contents, which ensured standardized, orderly and transparent management work of the company. In the 2012 Corporate Social Responsibility Report Press Conference of China Industrial Economy Industry, Ansteel Group Corporation released a sustainable development report, which was rated as one of the best in China by the social responsibility grading institution of Chinese Academy of Social Sciences (CASS). Meanwhile, Ansteel Group Corporation's case entitled *Forging a Green Production Chain and Realizing Resources Conservation and Cleaner Production* was selected as a classic case of the Press Conference. So far Ansteel Group Corporation had consecutively released six sustainable development reports, utilized the role of the sustainable development report as a platform for disclosing information and made response to the stakeholders' concerns in the social responsibility work of Ansteel Group Corporation.

2007 >> 2008 >> 2009 >> 2010 >> 2011 >>

Research and Exchanges on Social Responsibility

In order to prompt an effective and continuous operation of its social responsibility management system and continually improve the management of corporate social responsibility, Ansteel Group Corporation reviewed the current incorporate social responsibility management system, made proposals in further improvement, constantly improve the social responsibility management system and working system and compiled the *Operation Report of Social Responsibility Management System of Ansteel Group Corporation* in 2012.

Ansteel Group Corporation actively participated in the research and exchanges on social responsibility organized by such governmental or social institutions as SASAC and Corporate Social Responsibility Research Center of CASS and facilitated a smooth proceeding of social responsibility related events.

Ansteel Group Corporation participated in the 1st China Charity Fair co-organized by SASAC, Ministry of Civil Affairs of the People's Republic of China, All-China Federation of Industry & Commerce, People's Government of Guangdong Province and People's Government of Shenzhen Municipality, on which it demonstrated its achievements in social responsibility work.

CHAPTER 02
Strategic Management

Core Values

Strategic Planning

Major Risks of Sustainable Development and Solutions

Corporate Governance

Punishment and Prevention of Corruption

Communication with Interested Parties

Core Values

Corporate mission

To build a powerful country by developing steel industry and create value for customers, employees, shareholders and the society

Corporate spirit

Innovation, practicality, endeavor and dedication

Core corporate values

To build a powerful country by developing the steel industry and bring benefits to the society

Corporate vision

To become the most competitive transnational iron & steel group corporation on the globe and become a leading enterprise in the iron & steel industry of China

Corporate Culture

Development concept

To rely on none but oneself to overcome difficulties and regard market criteria as working yardstick, product quality as the corporate life, innovation as competency, efficiency as benefits and executive force as productivity

Safety concept

Life is valuable, safety is a duty System is a guarantee and execution is critical

Management concept

Employee-friendliness, pursuit of excellence, strict standards and strict implementation

Environmental protection concept

Green manufacturing and green Ansteel

Operational concept

Deliver high-quality products to customers so as to achieve a win-win result with good faith

Corporate Culture Building

In 2012, Ansteel Group Corporation proactively stepped up the construction of corporate culture and established a corporate culture system in good match with its strategic development objective to create values which the employee base, to a significant extent, identifies with and practices on their initiative, and to create advanced corporate culture.

1. Ansteel Group Corporation promoted the corporate culture building by exemplary roles. Theoretical research and diffusion were conducted on the generation of "Guo Mingyi Spirit", cultivation of exemplary individuals and groups in Ansteel Group Corporation and the corporate culture, etc. in combination with learning from Guo Mingyi. As for research outcomes, *Cultivating Exemplary Groups to Inherit and Carry forward the Culture of Ansteel Group Corporation* was introduced as experience on the Conference of Promoting Construction of Socialist Core Value System by State-owned Enterprises held by Central Propaganda Department and SASAC, and published on the *People's Daily; and Examples of Ansteel Lead Characteristic Culture* was incorporated as a training course by the "Seminar for Party Building and Corporate Culture Building in the New Times" of the Organization Department of Communist Party of China.

At the National Corporate Culture Forum & First Star Corporation Brands Assessment Press Conference, Ansteel Group Corporation became the first ones awarded the title of "5-Star Chinese Enterprise Brand" and also obtained the title of "Entity with Special Contribution in National Corporate Culture Construction"; the experience of building exemplary culture of Ansteel was selected into "Top Ten Exemplary Cases of Corporate Culture in 30 Years' Practice" by China Corporate Culture Institute; and the research project of *Innovative Culture Leads Original Innovation – Empirical Research in Innovative Culture of Pangang* was awarded the first-class prize by China Corporate Culture Institute, and Pangang was entitled as "National Civilized Unit" for the third time.

2. The historical and cultural resources of Ansteel was tapped and enriched. A series of monographic studies on the historical resources, humanistic resources and brand resources of Ansteel were initiated. In particular the "Monographic Study on the First Brands of Ansteel" collected the clues of the first brands created by Ansteel and put forward to 50 First Brands by Ansteel. By recalling the century-old history of Ansteel and collecting and organizing the historical materials, the scheme of compiling a *Century-old History of Ansteel Group Corporation was proposed.*

3. The cultural integration of Ansteel Group Corporation was facilitated. A series of activities themed "Ansteel Group Corporation – Our Home" were developed to create the atmosphere for cultural integration. To carry forward the standardization of the Visual Identity (VI) System, the VI System Application Manual of Ansteel Group Corporation was issued and a new VI System was brought to use. The special advertising film of *Ansteel of China* was produced to display the brand image of Ansteel. The exhibition hall for the titanium industry of Pangang was constructed and the Jin Mao Tower exhibition hall of Pangang was renovated; the standard design and production of outbound exhibits were completed; and the new edition of *Picture Album of Pangang Group Company Ltd.* was published.

4. The Corporation promoted the long-term and in-depth development of Learning from Guo Mingyi activities. Ansteel Group Corporation developed the activity of "Carrying forward the Lei Feng Spirit and Striving to be a Model like Guo Mingyi" among all employees and held the corresponding seminars, set up a Guo Mingyi Forum of Ansteel Group Corporation, and organized meritorious contests around "Learning from Guo Mingyi to Become High-quality Employees of Ansteel".

Li Changchun, Member of the Standing Committee of the Political Bureau of the CPC Central Committee and Director of the Central Commission for Guiding Cultural and Ethical Progress of the Communist Party, presented the Certificate of Honor to Guo Mingyi.

The Central Commission for Guiding Cultural and Ethical Progress of the Communist Party awarded Guo Mingyi the honorary title of "Lei Feng of the Modern Times".

Ansteel Group Corporation held "Guo Mingyi Forum".

5. A Research Society of Guo Mingyi Spirit was established. The Research Society of Guo Mingyi Spirit of Ansteel Group Corporation conducted systematic study on multiple contents including the connotation, realistic significance, contemporary characteristics and modern values of Guo Mingyi Spirit and its connection with the historical culture of Ansteel to further uncover the connotation of Guo Mingyi Spirit and facilitate the construction of socialist core value system.

Ansteel Group Corporation established Research Society of Guo Mingyi Spirit.

The Chief Editor's Office of CCTV and the personnel of the editorial department of *Network News Broadcast* visited Ansteel and developed activities of "Visiting the Grass-roots Entities and Changing the Style of Work and Writing" and "learning from Lei Feng and Learning from Guo Mingyi".

Strategic Planning

Corporate Vision

Ansteel Group Corporation aimed to become the most competitive transnational iron & steel group corporation in the globe and become a leading enterprise in the iron & steel industry of China.

Guiding Ideology

By thoroughly implementing the spirit of the 18th National People's Congress of the CPC and under the guidance of the Scientific Outlook on Development, Ansteel Group Corporation freed the minds and changed ideas, established "Six Types of Development Ideologies" and scheduled for future development in a global perspective to accelerate the transformation upgrading and create national iron & steel backbone; it quickened the pace of reform to build a resource-saving and environment-friendly enterprise and forge an upgraded Ansteel by adjusting the industry structure and product structure and cultivating core competency to develop strong principal business while promoting the coordinated development of the relevant multiple industries.

Development Strategy

- Ansteel worked its way to a manufacturer of select iron & steel. Focusing on quality, differentiation and low cost, Ansteel Group Corporation formed a series of competitive products and developed the principal iron & steel industry to be the best and biggest through technical innovation and reform and innovation in business mode, vitalizing stock, utilizing increment, restructuring products and enlarging the scale of quality products.
- The edge in resources was further sharpened. Ansteel Group Corporation brought into play the advantage of the existing iron mines and vanadium and titanium resources of its own, facilitated the productive capability of the iron ore mine and the control of external resources, improved the comprehensive utilization of resources and realized the transformation from the resource support type into the resource management to develop a world-class iron mine enterprise.
- The Corporation optimized the distinctive vanadium and titanium industry. Ansteel Group Corporation boosted technical research and development, drew on resource advantages to develop products with the best cost competitiveness, expanded the applicable sectors in the market, enhanced the general competency of the industry chain and made more contribution to the industry.
- The development of non-steel industry was given due attention. It has become an important support for the upgrading and growth of Ansteel to strengthen and extend non-steel multi-industry around the value chain of iron & steel industry and create the business sections that have independent capability in operation and development as well as brand influence via the accelerated innovation in system and mechanism and transformation of development mode.

- The innovation-driven growth mode was put into practice. Ansteel Group Corporation sped up in reform, innovation and information-based construction to establish integral innovation system within the Group and make progress in management; enhanced the research and development of core technology and constantly developed new materials in the iron & steel industry; and was committed to the development of cyclic economy and the construction of ecological civilization to realize green growth.

- Transnational operation was extended. Ansteel Group Corporation exploited its own brand advantage, focused on the global market research and training of talents in international operation, and strengthened the construction of the internationalized development system to sharpen the capability of transnational operation and stably extend the overseas layout.

Planning Objectives

Ansteel Group Corporation aims to work its way into the top rank of the iron & steel industry and become a fairly competitive cross-national iron & steel group in the world with related multiple businesses in coordinated development by 2015.

(1) The annual revenue, as is planned, shall reach about RMB 200 billion by 2015, with profitability above the industrial average.

(2) The production capacity of crude steel shall reach 43 million tons per year; the output of iron ore concentrate shall reach 45 million tons per year; vanadium products (V_2O_5) shall be over 40,000 tons per year; titanium ore concentrate more than 1 million tons per year; titanium dioxide over 200,000 tons per year; titanium products 10,000 tons per year; and both the proportion of revenues and the rate of benefit contribution of the non-steel businesses shall be more than 30%.

(3) Market share of the high value-added products shall be increased and major products of iron & steel, vanadium and titanium products shall take a lead in the industry.

(4) An efficient and scientific group-based management mode shall be built and a management model of the iron & steel industry with Ansteel characteristics will be forged.

(5) The Corporation will strengthen its control in China's Northeast and Southwest, fortify the strategic layout in the East and South China and extend the overseas layout further to realize the coordinated division of responsibility of production between production lines in all bases and optimized resource allocation.

(6) A "Beautiful Ansteel" shall be built where employees' income is to be increased with a rise of 35% averagely in 2015 compared with that in 2010.

Strategic Implementation

An Optimized Iron & Steel Production Structure for Higher Market Flexibility

The measures to reduce losses and increase profits were implemented with the proposal of "Six Musts" and "Ten Requirements" and the establishment of the train of thoughts – to implement the "Three-Step" strategy, develop "Four Activities", establish "Six Development Concepts" and finally realize "One Goal" – in work. The experience of building simulative market mechanism of the Bayuquan subsidiary was promoted, of which the market price reversely determined the cost of working procedure and every employee was market-oriented and worked out accounts of their position, to contribute to profitability and rein in the downturn tendency in economic efficiency. Production was organized under the principle of giving priority to efficiency to dynamically carry out the economic operation model; the close coordination between production, supply and marketing was strengthened to realize flexible adjustment in production lines and variety; and the adjustment in the structure of ore blending and in proportion was made to increase the capability of reducing costs and increasing profits.

The Resource Edge in Full Play for Greater Productivity and Efficiency

The project of the iron ore mine plan was approved by the National Development and Reform Commission. During the period of "The Eleventh Five-Year Plan", six programs of Anshan Iron and Steel were made great progress, of which the Xiaogushan Mining Site of Dagushan Iron Mine, Xidabei Mining Site of Anqian Iron Mine and the Dumu Mining Site of Gongchangling Iron Mine formed production capacity; and the Guanbaoshan Mining Project and the Qidashan Iron Mine Project Phase II, the key projects listed in "The Twelfth Five-Year Plan" period, were qualified to start construction. The completed Baima Iron Mine Phase II and the project of recycling waste ore of Mining Company of Pangang went to operation, and many projects such as the project of changing mining in the open to underground at Jianshan Mining Site, the project of using and crushing waste ore, the reform of the transport system at Zhulan Mining Site and the upgrading and renovation of the processing equipment at the Midi Concentration Plant were in progress on schedule; the iron & steel, vanadium and titanium industries were developed with the major production lines of Xichang Steel and Vanadium Co., Ltd in the stage of trial production.

Development of Non-Steel Industries for Higher Benefit Contribution Rates

The internal organizational structure of the non-steel industry was optimized by integrating the information industry and reinforcing market development; financial companies were integrated to develop the financial industry; and the platform for the development of the coal chemical industry was created. Non-steel projects made significant progress – the expansion project of micro powder of mineral waste residue in the region of Anshan, the project of micro powder of mineral waste residue at the Bayuquan iron & steel base and the production line of super-fine high-purity aluminum powder were completed in construction and went into operation. Pangang co-invested with Guizhou Panjiang Investment Holding (Group) Co., Ltd. to found Panzhihua Panjiang Coking Co., Ltd. and Xichang Panjiang Coking Co., Ltd., and jointly funded Panzhihua Zhongyi Fine Chemical Industry Co., Ltd. with Qujing Zhongyi Fine Chemical Industry Co., Ltd. and Sichuan Chuanmei Huarong Energy Limited Liability Company.

Technical Innovation Leading to New Achievements

The steel of Q500qE for bridge, which was firstly developed at home, was the strongest steel grade that was allowed to be used in the railway bridge in China currently and passed the technical inspection of the Ministry of Railways; the wide-heavy plate of X80 resistant to deformation was accredited by the China National Petroleum Corporation (CNPC); the special steel for the rescue capsule used in coal mines was achieved volume supply; and as the only one that scored the bid for the steel used by the Tanana River Bridge of Alaska, the US, Ansteel Group Corporation became the first enterprise with the capability of producing paint-free, weather-proof steel for bridge in China. The research in "technology of coke oven gas oxygen-enriched injection into blast furnace" made great breakthrough in that the world's first ever mixed injection of coke oven gas and coal dust into blast furnace was achieved, which marked the Ansteel's leading role in the energy-saving and emission-reducing technology of blast furnace steel-making all around the globe. "National Key Laboratory for Comprehensive Use of Vanadium and Titanium Resources" was established and operated, and the laboratory of automotive steel in international advanced level was also set up. And great breakthrough was made in technological researches such as the high-strength smelting of the high ratio of vanadium titano-magnetite, the technology of producing electrolyte of vanadium redox battery, the technology of turning vanadium-aluminum alloy into an industry, the new technology of titanium extraction and clean production of vanadium oxide.

Green Development Leading to New Breakthroughs

In 2012, Ansteel Group Corporation saw a 1.88% decrease in comprehensive energy consumption per ton of steel and a 3.45% reduction in fresh water consumption per ton of steel. It implemented 26 energy performance contracting projects, 14 of which were completed in construction and put into operation, and could save 84,000 tons of standard coals every year. By energy performance contracting mode, Ansteel implemented the renovation of low pressure water pump, frequency conversion of draught fan, recycling of evaporation, green lighting and other projects. With the implementation of the Blue Sky Project, the fuel gas desulfurization project of the two sintering machines in the home base of Anshan and Baiyuquan was put into operation with desulfurization capacity increased by more than 5,000 tons in a year. The wind power generation and photovoltaic power generation project in Bayuquan was completed and started to generate electricity. The reconstructed equipment of distillation of salt by means of coking desulfurization and decyanation waste liquid was put into operation, and the key technology of intensified disposal of coking waste water found itself at the forefront on a global basis.

Information about Key Projects

The Project of the Institute for Future Iron & Steel

The construction of the first phase of the project of Institute for Future Iron & Steel of Ansteel Group Corporation was commenced in September 2011. On the basis of the medium and long-term developing strategy of Ansteel Group Corporation, the Institute for Future Iron & Steel would be committed to the research and development of the key foundation, applied core technology and general technology that lead the development of the iron & steel industry of the world, become a platform where Ansteel could develop external cooperation in research and development and improve the industry-university-research institute collaboration pattern and serve as an important base to attract high-level talents to engage in entrepreneurial innovation.

The Topping-out Ceremony of the Phase One Project of the Institute for Future Iron & Steel of Ansteel Group Corporation.

The Project of Slag Powder

In the project of slag powder in Bayuquan, Ansteel Group Corporation built three slag powder production lines, each with an annual output of 700,000 tons, whose construction was completed on May 28, 2012 and yielded an annual output of 2.1 million tons of slag powder. Meanwhile, a new slag powder production line with an annual output of 700,000 tons was built in the headquarters in Anshan and completed and put into operation on July 15, 2012. This project turned the water-granulated slag of blast furnace generated in Anshan area and Bayuquan iron & steel base into high value-added slag powder, which not only extended the channel of creating benefits in the non-steel industry but also achieved clean production and proved to be economically and socially beneficial.

The Project of Slag Powder in Bayuquan of Ansteel Group Corporation was completed and put into operation.

The Project of No. 3 and No. 4 Coke Ovens Newly Built by Pangang Group Xichang Steel and Vanadium Co., Ltd.

In 2012 the project of No. 4 coke oven of the Pangang Xichang Steel and Vanadium Co., Ltd. entered the phase of pilot production and the construction and device installment of the project of No. 3 coke oven were completed and entered debugging phase. This project included the construction of the production equipment such as coal preparation workshop, coking workshop, sieving and storing coke system, dry quenching system, gas purification workshop, etc. and the production auxiliary equipment including generator set, lithium bromide refrigeration station, condensate water pump station, phenol and cyanogens wastewater disposal station and circulating water pump station and so on.

The Project of the Treatment Line in Bayuquan Iron & Steel Base

The project of the heat treatment line in Bayuquan Iron & Steel Base was about the construction of the second heat treatment production line on the basis of the existing one, which ensured the mass production of the high value-added heat treatment varieties such as steel for hydroelectricity, steel for nuclear power industry and steel for petroleum storage cylinder, to further promote the market competitiveness and increase the market share.

The No. 3 Heat Treatment Production Line in the Bayuquan Iron & Steel Base of Ansteel Group Corporation

The Project of Super-fine High-purity Aluminum Powder Production Line

The project of super-fine high-purity aluminum powder production line was an important move of Ansteel Group Corporation to develop the non-steel industry, which mainly covered full gas-shielded aluminum melting furnace, atomization system, aluminum collection system, gas compression system, research and development center and central control room and so on. The implementation of this project not only accelerated the restructuring of the non-steel industry of Ansteel Group Corporation but also met the needs of the national economic construction.

Major Risks of Sustainable Development and Solutions

Risk Analysis of Sustainable Development

From the international perspective, the global economic growth is marked by the tendency of further slowing down. The economic recovery in the US was full of twists and turns; despite some positive signals this year, the prospect of a long-term growth remained slim. The uncertainty of the European economy was swelled; should the sovereign debt crisis be out of control, it shall threaten a new round of systematic risks in the global economy. Under the influence of the shrinking overseas market demand, the Japanese economy would remain depressed. The growth of emerging economies also appeared to slow down. The protectionism in international trade was flared up obviously in that not only the developed economies like the USA and EU set up various barriers one after another, some emerging market countries also increased their restrictive measures in trade. As predicted by the International Monetary Fund (IMF), the global economic growth remained in the interval of weak growth and a complete recovery from the slump was still some way off.

From the domestic perspective, the three major demands - export, investment and consumption – and output growth were lower than the market expectation at large, and the dropping export and the shortage of internal effective demand were the major contradiction to the economic operation. The Central Economic Working Conference pointed out that "the development of China is still faced with many risks and challenges and it remains an acute problem with the economy being unbalanced, uncoordinated and non-sustainable".

From the steel industrial perspective, the output of crude steel kept hitting record high in recent years in a contrast to the poorly inadequate market demand. As the economic growth further slowed down at home and abroad, competition in market became fiercer while the contradiction between supply and demand was exacerbated. In the downstream of the industry chain, the order of new ships plummeted in the shipbuilding industry; investment in real estate dropped; the appliance market was weak; the growth in export of mechanical and electrical products decreased; investment in railways and highways once showed negative growth; and the growing rate of the production and sales in the automobile industry was lower than that of 2011, which resulted in decreased demand for steel in the domestic market. In the upstream of the industry chain, the price of the raw materials and fuel in bulk like iron ores and coal fell back a bit since the fourth quarter of 2011, with a falling margin clearly smaller than that of the steel price though, and quickly rebounded to high. The tough situation of high cost, large production capacity, low demand and poor economic benefits of the iron & steel industry could hardly expect an outright change in the short term.

Opportunities for Sustainable Development

Although there were many uncertain factors that affected the economic development at home and abroad, it was important to see the positive factors in the domestic and foreign economic environments, as opportunities, as often as not, came along with troubles. As for the international context, the Federal Reserve Board initiated the third round of quantitative easing monetary policy that would play a big role in stimulating the recovery of real estate and employment industry in a short period and shore up the global economy. The eighteenth NPC clearly stated that China was still in an important strategic period to accomplish great deeds; the national and local measures to stabilize growth were introduced continuously and projects worth over a trillion RMB were approved by the NDRC, which would be strong stimulus for the lasting downturn iron & steel market.

Ansteel Group Corporation had a fairly complete iron & steel product series with its core products including heavy rails, shipbuilding plates, automotive sheets, appliance sheets and container plates, etc. well-known at home. It had the world's leading vanadium industry and the largest titanium industry in China that rendered a vast space for product restructuring. Besides, it also possessed mineral resources, one of its most important advantages that would become greater with the implementation of the planning project of mineral resources in Anshan and Panzhihua.

Solutions to Sustainable Development

1. The Corporation optimized production in an all-around manner, increased the flexibility toward market and drew upon the synergistic effect to achieve the maximum benefits of the Group. Ansteel Group Corporation established a production and operation linkage mechanism with an integral "supply, production, marketing, research and performance" system, closely traced the change in the market of the sales of products and procurement of raw materials and fuel and made timely adjustment in the product output and structure to improve the entire operational effect. With the internal cooperation and coordination, it took great control of production pace and fully carried out the total charge of production and operation in the company to give full play to the synergistic effect.

2. The problems in craftsmanship and the bottleneck of quality shall be disposed of by means of technical reform to enlarge the potential for cost reduction and benefit increase. It gave full play to the technological innovation, focusing on developing the new cost-reducing craftsmanship and technologies as well high value-added products to break through the bottleneck in the improvement of quality.

3. Reform and innovation shall be stepped up to provide motivation for cost reduction and benefit increase. With the goal of achieving an overall control by the Group, it pushed forward the structural reform in the headquarters of the Group and regional subsidiaries, bringing full play to the coordination of each section. Ansteel Group Corporation made further moves to integrate its internal businesses, increase the industrial concentration ratio of each business section, decrease operational costs and promote the management efficiency.

4. A campaign shall be launched for higher management efficiency to tap the potential of cost reduction and benefit increase. In line with the requirements of "strengthening foundation, controlling risks, upgrading transformation, maintaining and increasing value, becoming stronger and pursuing perfection, and developing scientifically" of SASAC, it pinpointed the existing weakness and crucial problems by systematic benchmarking and devised effective measures to make improvement.

5. Sales shall be reinforced to enhance corporate benefits. Through innovation in system and mechanism, it started off with changing sales concepts, extending the layout of sales network, strengthening the sales team and building the sales information platform, etc. to set up a new marketing pattern. It devoted great efforts to the sales in the vicinal markets shortening the selling radius to make full use of the geographical advantages of the products.

6. Production safety shall be given due attention for the sake of a safe development. All kinds of accidents were completely eradicated by learning from mistakes, improving the responsibility system for safe production and intensifying the examination of target responsibility to create a good environment for stable and solid development of the enterprise.

Promotion of the Effective Operation of Risk System and Prevention of Various Major Risks

1. The range of risk assessment shall be extended and annual risk assessment implemented. In order to carry forward the in-depth integration of risk management and the activities of production, operation and management and prevent major risks effectively, Ansteel Group Corporation extended the range of risk assessment including the regional subsidiaries and their affiliate entities active in production and operation into the scope of annual risk assessment in 2012. Round the target of production and operation and key performance indicators, it conducted risk analysis and assessment in combination with internal and external major risks, made a risk list and developed measures to monitor, cope with and manage risks in the levels of the Group Corporation and subsidiaries respectively. With regard to major risks, it analyzed the risk manifestation, risk response management measures, risk monitoring indicators and other aspects and complied *2012 Report of Comprehensive Risk Management of Ansteel Group Corporation*.

2. Special risk management shall be carried out. To further enhance the risk management and control and to promote the normative operation of the risk system, Ansteel Group Corporation implemented special risk management and formulate measures to strengthen risk monitoring and perfect risk coping management around five major risks confirmed in its annual risk assessment, including group management and control risk, human resource risk, overseas investment project supervision risk, cash flow risk and market risk.

3. Construction of the internal control system shall be advanced. The construction of internal control system in the two listed companies, i.e. Angang Steel Company Limited and Pangang Group Vanadium Titanium & Resources Co., Ltd., was stepped up and self-evaluation reports of internal control gained shape.

4. Risk management and special research in internal control shall be carried out. The Corporation systematically summarized the construction of comprehensive risk management system and the working effectiveness in improving the risk prevention capacity in key sectors of recently years, identifying problems and weakness and working out the special planning for the improvement of risk management in new times, and compiled the *2012 Assessment Report of Comprehensive Risk Management System Construction of Ansteel Group Corporation.*

Working Procedures of Annual Risk Assessment of Ansteel Group Corporation

Risk Control

Financial Risk Control

In 2012, Ansteel Group Corporation continued to advance and apply the centralized fund management system and intensified fund control and elaboration management of cash flow budget to ensure the stable operation of overall funding. It strengthened capital occupation and inventory management, increased the efficiency of working capital turnover and balanced the overall fund plan of Ansteel Group Corporation. The Corporation made efforts to innovate financing method, adjust financing structure and lower financing costs. In response to the severe market situation, Ansteel Group Corporation held economic activity analysis meeting on April 28 and the mobilization meeting of reducing costs and increasing benefits on September 27, adopted the reverse mechanism that let market determine production costs and adjusted the objective of reducing and controlling losses and increasing profits to keep financial risk at bay.

Legal Risk Prevention System

Ansteel Group Corporation established a new legal risk prevention mode centering on guaranteeing legal and normative corporate operation. It built an integral “prevention-management-control” legal risk supervision mode characterized by horizontal coordination and vertical connection that is constituted by three systems, i.e. the general corporate legal counsel-centered organizational system, the systematical control-pillared legal risk management system and the network-like joint prevention working system, carried out overall planning and deployment, orderly advance as a whole and seamless linkage of business, and formed the working chain of prevention first, management following up and then control being gatekeeper to prevent corporate legal risks in an all-round way. No major legal risk incident happened in Ansteel Group Corporation in 2012.

Reinforcement of the Audit System Construction

Ansteel Group Corporation, in its faithful adherence to the Scientific Outlook on Development, brought to full play the functions of intensified control and risk prevention by carrying forward internal audit when centering on the highlights of the Corporation's operation and technical reform based on the related legal rules and stipulations of the state. It made further move to enhance the fundamental construction of audit actively engaging in various audit work in 2012. It completed a total of 78 audit projects in a year including 27 economic accountability audits, 10 special audits, 4 comprehensive audits, 15 financial audits, 1 operational management audit, 1 follow-up audit and 20 engineering audits. 861 problems were revealed in the audit and 418 audit opinions and suggestions were put forward; the project investment of RMB 23.2 billion was audited and RMB 52.84 million of project expense was reduced through audit.

Ansteel Group Corporation was the only entity in China's iron & steel industry that was awarded the title of "Leading Enterprise in Internal Audit" in 2012 in the event of "State-owned Enterprises Set Sails Escorted by Internal Audit – 2012 Exhibition of Internal Audit of State-owned Enterprise" held by the China Institute of Internal Audit.

Corporate Governance

Management System

Functional Orientation of the Headquarters

— **Strategic Management** — The headquarters was responsible for the formulation of strategic planning and the assessment and examination of the implementation results, responsible for the review and approval of the feasibility report of major projects and project initiation, and responsible for the united organization and implementation of the global layout and section-based operation of Ansteel Group Corporation.

— **Capital Operation Management** — It was responsible for the unified decision-making and management of significant investment, capital operation, merging and restructuring and financing from the outside.

— **Financial Management** — It was responsible for the overall budget management, centralized capital management, investment profit management and general taxation management.

— **Risk Management** — It was responsible for building the comprehensive risk management system and audit internal control system and responsible for the prevention and supervision of various risks.

— **Resource Sharing** — It was responsible for the development and management of core human resources, responsible for corporate culture and brand building and responsible for the construction of public relations, social responsibility system and information system.

— **Operational Coordination** — It was responsible for balancing strategic resources, making connected transaction policies and building rapport with major customers.

Management and Control Mode

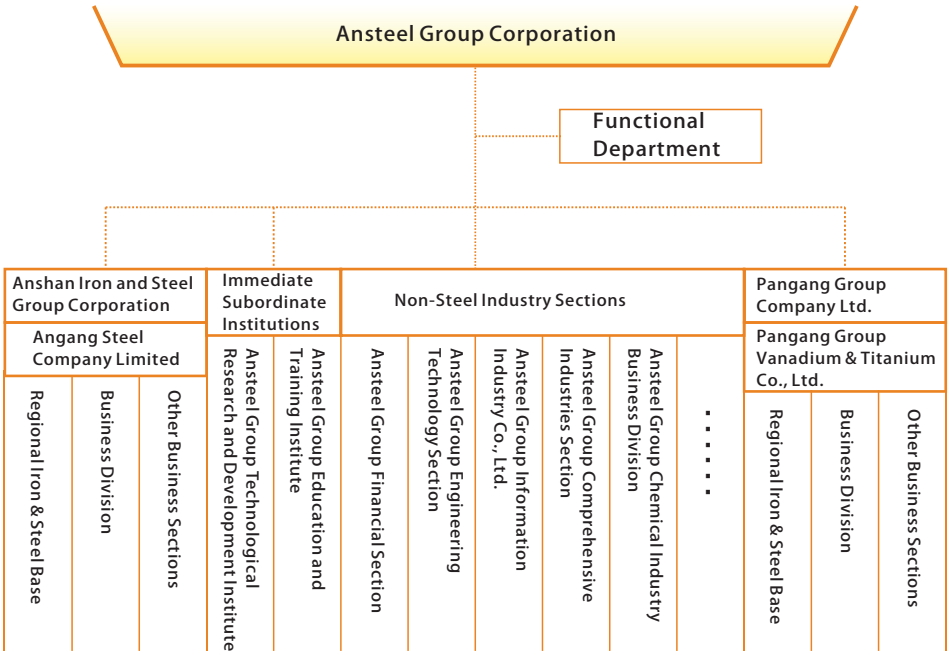
According to the functional orientation of the headquarters of the Ansteel Group Corporation, the strategic management and control mode with "moderate centralization, reasonable decentralization and systematic supervision" was adopted to realize "centralized decision-making in major matters, authorized independent operation of regional subsidiaries and reinforced risk prevention and supervision of normative operation".

The core of management and control was "governance + management + control", which means building normative two-tiered corporate governance structure in Ansteel Group Corporation and subsidiaries respectively to realize scientific decision-making, building a system of structural framework, rights and liability boundary and regulation procedure in Ansteel Group Corporation and regional subsidiaries to realize the normative, orderly and effective operation of corporation management, and building impeccable system of risk management and internal control and system of supervision and examination to realize the effective supervision of the overall operational results.

Management and Control Framework

The management and control framework was the mode of "regional subsidiaries + non-steel industry section + business division" under the unified leadership of Ansteel Group Corporation.

Management and Control Framework of Ansteel Group Corporation



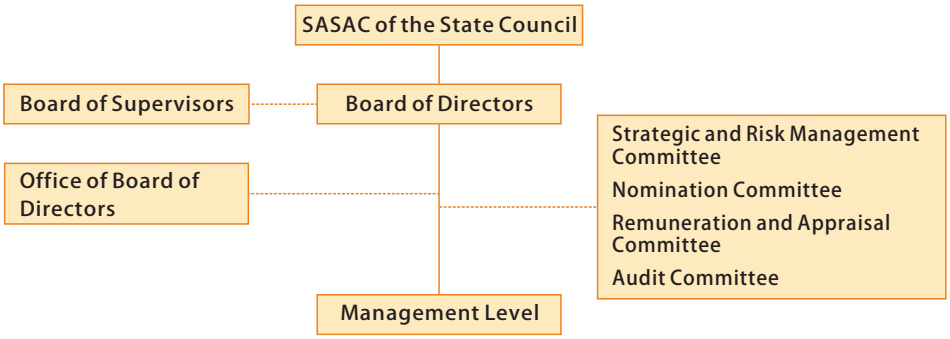
Improvement of the Corporate Governance Structure

Ansteel Group Corporation set up a standard Board of Directors system and improved the corporate governance structure. The Board of Directors of the Corporation was made of 9 directors including 5 outside directors and 1 worker director. Subordinate to the Board of Directors there were strategic and risk management committee, nomination committee, remuneration and appraisal committee and audit committee.

Pursuant to the *Company Law, Law of State-owned Assets of Enterprises, Interim Regulations on the Supervision and Administration of State-owned Assets of Enterprises* and other laws, regulations and relevant rules, Ansteel Group Corporation formulated the *Articles of Association of Ansteel Group Corporation* and the supporting *Rules of Procedure of the Board*, Rules of Procedure of the General Manager and Working System of the Secretary of the Board as well as such working regulations as the *Rules of Procedure of the Special Committees of the Board* and *Rules of Procedure of Party Committee* to build and improve coordinated and unified governance structure and regulation system with clear responsibility for the Board of Directors, Board of Supervisors, Managers and the Party Committee.

SASAC of the State Council held the working conference of building standard Board of Directors of Ansteel Group Corporation.

The Governance Structure Graph of Ansteel Group Corporation



Improvement of the Rules and Regulations Management System

In order to build a new system and mechanism suitable for its management and control mode, Ansteel Group Corporation set up a rules and regulations management system in an attempt to reach the management objective of centralized decision-making in major matters, unified allocation of important resources, centralized coordination of strategic businesses and systematic supervision of key procedures and major risks, and carried out regulation building and the review and appraisal of the implementation in combination with the major initiatives of the corporation such as execution of reform and innovation, benchmarking-based potential exploitation, cost reduction and benefit increase and management promotion. The review and appraisal mainly revolved the core value chain and core business procedures to evaluate the rules and regulation system building of each entity as well as the coverage rate, norm rate, execution rate and review rate of the rules and regulations, and then made and improved rectification measures in time against the existing problems to facilitate the effectiveness of the rules and regulations management and realize the management system with PDCA method.

Optimization of the Management Process

Based on the management and control mode, Ansteel Group Corporation devised and built the process management system and formed the first 44 core business processes covering 9 functional sections with strategic management, investment and capital, financial plan and budget, organizational system and regulatory workflow, human resources, etc. included. It improved the process management system via optimizing business process, updating the process operation manual annually and promoting the information-based building of the business process management. And it also organized the review and assessment of the process management which involved supervising the undertaking of core business processes and the construction of process system and assessing such core business processes as performance appraisal, financial management and procurement of goods and materials.

Corporate Reform

Integration of Internal Business and Optimization of Resource Allocation

In order to better bring to full play the coordination effect of the internal resource management by information technology of Ansteel Group Corporation and realize substantive integration, Ansteel Information Industry Corporation was established by integrating business from eight entities including the original Ansteel Automation Company, the original Ansteel Telecommunication Plant, the original Ansteel Electric Company, the original Pangang Tuori Company, the original Pangang Communication Company and the Pangang Automation Institute, etc.. The newly founded Ansteel Information Industry Corporation would make great efforts to become an important leading enterprise with great influence in the automation and information-based sectors of the metallurgy industry by using the advantage of resource integration, constant reform and innovation and extending domestic and foreign markets.

In order to further optimize the industrial structure, the Chemical Industry Business Division of Ansteel Group Corporation was established. The Chemical Industry Business Division that centered on the development, technological research & development and production and operation of the coal-to-chemicals industry and adopted the operational model consisting of simulative legal person, independent operation, independent accounting and sole responsibility of its own losses and gains was established by the integration of the byproducts-based inspection business of the recycling zone, tar refinement zone, benzene hydrogenation zone and R&D zone of the original General Chemical Plant of Angang Steel Co., Ltd., the gas purification and recycling business of the Bayuquan iron & steel subsidiary of Angang Steel Co., Ltd. and Chaoyang Anling Iron & Steel Co., Ltd., and the chemical products sales business of the marketing department of Angang Steel Co., Ltd..

In order to further standardize the management of stripped rocks in mines and provide potent support for the development of a strong and advanced resource section by integral advantageous resources, the Ansteel Construction Stripping Rock Engineering Co., Ltd. was founded. Its establishment was conducive to optimizing resource allocation, giving play to the stripping device efficiency, improving the centralized management of specialization, reducing production, management and operation costs and increasing the decision-making efficiency and supervisory capability.

Optimization of Industrial Structure and Promotion of Corporate Competency

Ansteel Cold-Rolled Steel Sheets (Putian) Corporation formed cooperative relationship in capitals with two strategic investors Fujian Sangang Minguang Holding Co., Ltd. (hereinafter referred to as Sangang Minguang) and the Putian State-Owned Assets Investment Co., Ltd. (hereinafter referred to as PSAIC) via the capital bond, which not only helped promote the cross-regional coalition of Ansteel Group Corporation, realize the reasonable layout of the iron & steel industry and restructure the products but also created a successful model for Ansteel to realize its cooperation with other enterprises and local governments in the form of joint venture. Pangang and Guizhou Panjiang Investment Holding (Group) Co., Ltd. co-invested Panzhihua Panjiang Coking Co., Ltd. and Xichang Panjiang Coking Co., Ltd. to develop all-round strategic cooperation in the coking field based on the strategic consensus of drawing upon each other's advantages, achieving mutual benefits and win-win results and sharing mutual development. The joint ventures in the interests of both sides would greatly promote the development of both founders in the future.

Promotion of Reform and Innovation and Improvement in Management

– Innovation Benchmarking Activities for Enhanced Competency –

In 2012 Ansteel Group Corporation developed "Innovation Benchmarking Activity in the Entire System of the Group as a Whole". The innovation benchmarking activity took the leading enterprise both at home and abroad as yardstick and developed in three dimensions of the Headquarters, subsidiaries and plants. Around the overall competency, the capability of creating value and the capability of controlling costs respectively, the three dimensions built their own themed benchmarking indicator system. The headquarters of the Ansteel Group Corporation built a benchmarking indicator system with 56 specific indicators covering 18 aspects, based on which the subsidiaries and plants then formed the indicator systems of their own levels.

– The Management Improvement Campaign to Build Risk-Busters –

In 2012 Ansteel Group Corporation waged a management improvement campaign within the Group in light of the theme of "strengthening foundation, controlling risks, upgrading transformation, maintaining and increasing values, becoming stronger and pursuing perfection, and developing scientifically" required by the SASAC of the State Council. The campaign inspired self-check and diagnosis around 14 important aspects for improvement such as strategic and investment management, group supervision and restructuring for integration and international operation, the effort to locate the weakness in management and bottleneck problems in the level of headquarters, identification of the key promotion sectors, completion of the Phase One tasks of the management improvement activity according to the "Five Aspects in Place" requirements of the SASAC of the State Council, and the transformation into Phase Two that centered on promotion in special aspects and coordinated improvement.

Ansteel Group Corporation held the kick-off conference of management improvement.

Establishment of Harmonious Relationships and Promotion of the Corporate Image

Protection of Shareholders' Rights and Benefits

Angang Steel Co., Ltd. attached great importance to the return on investment of the investors, and made a long-term and stable profit distribution policy. In 2012 Angang Steel Co., Ltd. and Pangang Group Vanadium Titanium & Resources Co., Ltd. revised their *Articles of Association* in accordance with the requirements of the *Notification of Further Implementation of Cash Bonus-related Matters of Listed Companies* issued by China Securities Regulatory Commission, establishing explicitly the basic principles, concrete contents and review procedures of the profit distribution and specifying in the *Articles of Association* that "the profits distributed in cash must not be less than 10% of the profits of the parent company available for distribution that year".

Ansteel Group Corporation, in line with the interest of the shareholders, held the general meeting of shareholders in time by strictly following the relevant provisions to ensure that shareholders exercise their rights. In

Pangang Group Vanadium Titanium & Resources Co., Ltd. held the first temporary shareholders' meeting in 2012.

2012, Angang Steel Co., Ltd. held two shareholders' meetings in which 12 proposals including the *2011 Working Report of the Board of Directors* and the *2011 Financial Audit Report* were reviewed and passed; and Pangang Group Vanadium Titanium & Resources Co., Ltd. held 4 shareholders' meetings in which 16 proposals including the *2011 Report of the Board of Directors* and the *2011 Report of the Board of Supervisors were reviewed* and passed.

Communication with Investors

Ansteel Group Corporation fulfilled the obligation of information disclosure in accordance with relevant laws and regulations and the regulations of Shenzhen Stock Exchange and the Stock Exchange of Hong Kong Limited. It built a normal internal review workflow of information published to the public and ensured the authenticity, accuracy, completeness, timeliness and fairness of information disclosed to constantly improve the efficiency and quality of information disclosure.

It unveiled operational performance and other important matters to investors via *China Securities Journal, Shanghai Securities Journal, Securities Times*, and the websites of Cninfo and Hong Kong Stock Exchange, etc.. In 2012 Angang Steel Co., Ltd. disclosed 36 pieces of information to the public via newspaper and media at home while Pangang Group Vanadium Titanium & Resources Co., Ltd. disclosed 116 pieces of information.

Building Harmonious Relationships

Ansteel Group Corporation built harmonious relationships in various ways to present investors the value for investment of the Corporation and to improve the corporate image in capital market. It formulated the *Regulations of Investor Relationship Management* to standardize the contact and communication with investors and also arranged full-time staff to take charge of the management of relationships with investors, handling the telephone inquiry of investors and receiving investors to conduct field researches in the corporation. In 2012, Angang Steel Co., Ltd. received domestic and overseas investors, fund managers and industry analysts to conduct field researches for 18 times; and Pangang Group Vanadium Titanium & Resources Co., Ltd. received the consultations of investors for about 600 times by phone, through online interactive platform and in the form of business performance report meetings.

Employees' Participation in the Corporate Management Mechanism

Ansteel Group Corporation which highly valued the communication between employees and the management encouraged the employees to participate in corporate production and operation. The corporation established an opinion-soliciting system via "Online Advice for the Corporation" and "Making Proposals" activities; regularly held the Employees' Congress; insistently held the discussion between the management and employees so that the management could turn in to the concerns of the employees; maintained the Reception Day system by which the management could hear employees' opinions on all aspects of the Corporation via reading the employees' letters and receiving their visits; and developed rational suggestion-oriented activities to collect opinions and suggestions from employees all times. For the opinions and suggestions collected by the above channels, it would instruct the person or department in charge to follow up and adopt the good ones and award those who made brilliant opinions and suggestions.

Pangang Group Vanadium Titanium & Resources Co., Ltd. held symposium with employees.

The Real-Name Campaign of "Online Advice for the Corporation"

In accordance with the guidance of "asking people for their opinions in governance, their needs and livelihood persistently and drawing upon the wisdom and strength from people's practice" of the 18th NPC report, Ansteel Group Corporation waged the campaign of "Online Advice for the Corporation" in the entire corporation pooling people's wisdom and strength and learning about people's situations and will via the internet by sticking to the principle of full coverage, involvement of great masses, promptness and efficiency.

The campaign of "Online Advice for the Corporation" provided great motivation for the implementation of the strategic development of Ansteel Group Corporation by being people-oriented and innovation-driven while using the online platform built for employees to make proposals as the carrier and the effective incentive mechanism as means. By building online communicative channels, it enabled every employee to equally participate in the corporate management, aroused their enthusiasm in entrepreneurship, solved thorny problems in development and improved the corporate management. By the end of 2012, employees of Ansteel Group Corporation offered 14,176 opinions and suggestions of various aspects via the dedicated website of "Online Advise for the Corporation".

The real-name "Online Advice for the Corporation" campaign of Ansteel Group Corporation came into full swing.

Of them, 13,668 pieces were handled by grass-roots entities, 439 pieces were submitted to the second-grade companies and dealt with after consideration, and 72 pieces were submitted to Ansteel Group Corporation and handled finally.

The Campaign of "Making Proposals"

Based on the long-term corporate development with the target of reducing and controlling losses and increasing benefits, Ansteel Group Corporation in 2012 developed a corporation-wide campaign of "Making Proposals" involving all leaders and cadres of above the vice-director level, and received from them overall 8,358 pieces of advice concerning the strategic development of the corporation, international operation, non-steel industry development, industrial layout, etc. that played important role in the development of Ansteel Group Corporation.

Activities to Solicit Rational Suggestions

The Corporation organized employees to develop the activities of making rational suggestions, established the rational suggestion-based operational mechanism including suggestion collection, adoption, project approval, tackling key problems , review and reward, which effectively mobilized the initiative of employees making proposals for the corporate development and reducing costs and increasing profits. In 2012, 33,340 rational suggestions were made and 13,670 of them were accepted and then translated into economic benefits of RMB 350 million, and those who made brilliant suggestions were commended.

Regular Employees' Congress

At the 11th Session of the 10th Employees' Congress of Ansteel Group Corporation, the following documents were reviewed and adopted: *Plan of the Use of Welfare Funds of 2012 of Ansteel Group Corporation (Draft), Collective Contract of Anshan Iron and Steel Group Corporation (Draft), Collective Contract on the Protection of Rights and Interests of Female Employees of Anshan Iron and Steel Group Corporation (Draft), Management Regulations of Non-regular Employees of Anshan Iron and Steel Group Corporation (Draft) and Regulations of Performance Assessment and Evaluation of 2012 of Anshan Iron and Steel Group Corporation (Draft)*. During the period of Employees' Congress, the employees' representatives made 69 suggestions in many aspects including corporate production and operation, reform and renovation, management innovation and compensation & bonuses and so on.

In the 1st Session of the 2nd Employees' Congress of Pangang Group Company Ltd., the *Working Report of Pangang Group Company Ltd., General Principles of Performance Examination of 2012 of Pangang Group Company Ltd.* and *Employee Training Program of 2012 of Pangang Group Company Ltd.* were reviewed and passed, and the *Collective Contract of Pangang Group Company Ltd.* and the *Collective Agreements in Compensation of 2012 of Pangang Group Company Ltd.* were concluded and signed. Moreover, 30 proposals from employees' representatives were collected and 8 of them were put on record and handled.

Performance Evaluation and Monitoring Mechanism

Fully Running the Unit Strategic Performance Management System Based on Value Creation

In 2012 Ansteel Group Corporation fully operated the strategic performance management system based on value creation that associated the EVA indicators with the compensation of the person-in-charge of subsidiaries, associated the key performance indicators of EVA with the compensation of employees of each department and unit, and established the EVA key performance indicators system by carrying forward value management through the key sections of corporate operation and management such as investment decisions, efficiency improvement of capital utilization, optimization of organizational structure and capital structure and reduction of capital costs to enhance the ability of making profits and creating values and strengthen the ideology of value management.

The Establishment of an Evaluation Mechanism with Unified Responsibility and Power

In accordance with the *Performance Assessment and Evaluation Regulations of 2012 of Ansteel Group Corporation* and the *Interim Regulations for Performance Evaluation and Compensation Management of Persons in Charge of Subsidiaries of Ansteel Group Corporation*, Ansteel Group Corporation signed *Letters of Responsibility for Annual Business Performance* with persons in charge of 38 subsidiaries including Angang Steel Co., Ltd., Pangang Group Company Ltd., Ansteel Group Mining Company, Ansteel Group International Trade Corporation, etc.. Based on the annual performance indicators of each subsidiary, the business performance of persons in charge of subsidiaries was quantified in the form of letters of responsibility to determine the income of the operators.

Punishment and Prevention of Corruption

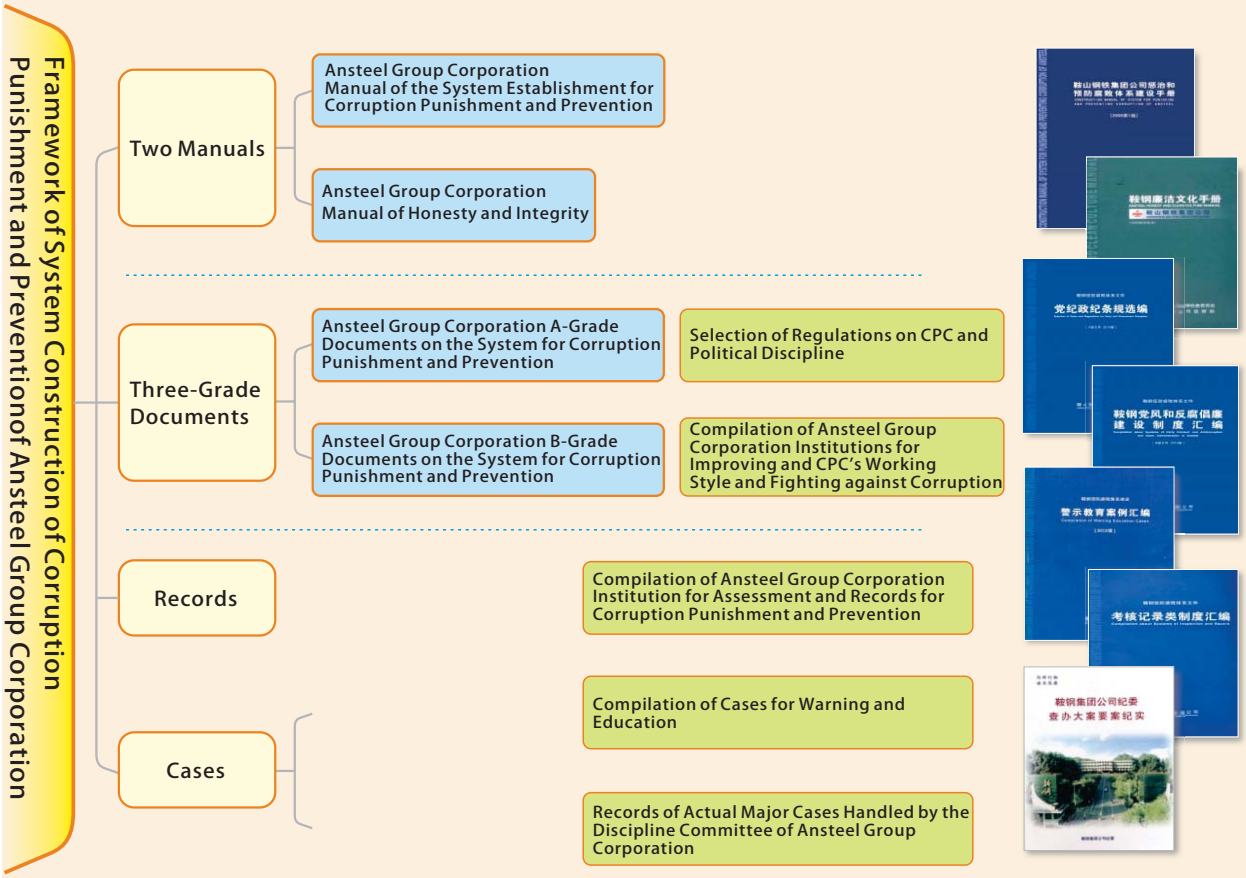
System Construction for Corruption Punishment and Prevention

Ansteel Group Corporation held the working conference of combating corruption and promoting integrity to implement the spirits of the conference of building integrity against corruption hosted by the Central Commission for Discipline Inspection of CPC and the SASAC of the State

Council and to arrange the tasks of combating corruption while promoting integrity in 2012. It held the 9th Session of the leading group in the sector of punishing and preventing corruption of Ansteel Group Corporation in which the construction of the system for punishing and preventing corruption from 2013 to 2017 was planned. In the improvement of the framework of the system for punishing and preventing corruption, it compiled the *Ansteel Group Corporation System Construction for Punishing and Preventing Corruption – Compilation of Cases for Warning and Education* and formed the system framework that is made of the Manual of the System Establishment for Punishing and Preventing Corruption, Manual of Honesty and Integrity, A-Grade Document of the *Selection of Regulations on CPC and Political Discipline* and a few B-Grade Documents including the *Compilation of Ansteel Group Corporation Institutions for Improving and CPC's Working Style and Fighting against Corruption, Compilation of Ansteel Group Corporation Institution for Assessment and Records for Punishing and Preventing Corruption, Compilation of Cases for Warning and Education and the Reflect on Integrity in Reading – Records of Actual Major Cases Handled by the Discipline Committee of Ansteel Group Corporation*, which further enriched and improved the system for punishing and preventing corruption.

The 2012 Working Conference of Anti-Corruption and Upholding Integrity of Ansteel Group Corporation.

The Corporation continued to conduct research on the "Integration of Three Systems", i.e. the system for punishing and preventing corruption, the corporate risk management system and the corporate social responsibility system, and push forward the promotion of integrity against corruption together



Framework of Management System for Corruption Punishment and Prevention of Ansteel Group Corporation

with the construction of the ideology, organization, working style and institution of the Party as a whole. It took advantage of the "Three Systems as an Entire Unity" information website in the construction of anti-corruption and integrity and overhauled the website into an upgraded version where new columns like Learning, Promoting and Implementing the Spirits of the 18th National People's Congress of the CPC, Investigated and Handled Cases and Information Database. Since it was opened in 2008, the website had become a critical carrier for Ansteel Group Corporation to combat corruption and promote integrity, build the system for punishing and preventing corruption and monitor the work concerned, with over 800 information and materials and more than 100 video materials uploaded. The corporation organized state-owned enterprises to promote the construction of the system for punishing and preventing corruption and deepened the exchanges with centrally-administrated enterprises and regional state-owned assets supervision and administration commissions. As the director, Ansteel Group Corporation organized 17 centrally-administrated enterprises including Guokai Group Holdings Co., Ltd., China Datang Corporation and China Hualu Group Co., Ltd., etc. and regional state-owned assets supervision and administration commissions to hold the symposium of the 8th Group in promoting the construction of the system for punishing and preventing corruption in centrally-administrated enterprises. And it introduced and exchanged its experience in the Working Symposium of Investigated Cases of Centrally-Administrated Enterprises, the Conference of Promoting the Construction of Integrity in State-Owned Enterprises, the Conference of Promoting Supervision of Efficiency Capability of State-Owned Enterprises and the Working Conference of National Poll Regarding Anti-Corruption and Integrity Promotion.

The 9th Session of the Leading Group in the system for corruption punishment and prevention of Ansteel Group Corporation was convened.

Ansteel Group Corporation was introducing experience in the Working Conference of Cases Handled by Centrally-Administrated Enterprises.

Activities were carried out by Group 8 for construction promotion of the punishment and prevention courses of the state-owned assets system of Ansteel Group Corporation.

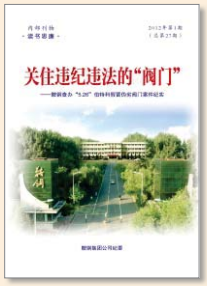
Combating Corruption and Upholding Integrity against Commercial Bribery

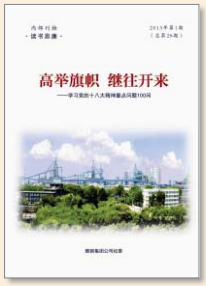
In 2012 the discipline inspection and supervision commissions of various levels of Ansteel Group Corporation handled overall 740 letters and cases of visits from the masses, filed and closed 89 cases, took disciplinary measures against 124 people including 37 managing personnel above vice-director level, proactively confiscated illegal earnings and retrieved financial losses of the corporation to the greatest extent.

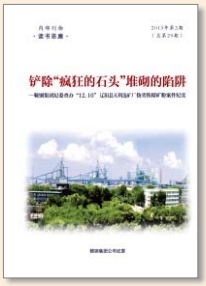
Ansteel Group Corporation strictly followed the disciplines and laws to deal with cases and took great efforts to get at the root of problems. It investigated and closed the Case of Selling Fake Imported Sealing Products to Ansteel, Case of Selling Fake and Inferior Coking Coal to Ansteel, Case of Selling Fake and Inferior Refined Iron Ore Powder to Ansteel and the Case of Losses of the Residue Ore of Zhu Mine of Pangang Mining Company and so on; and it also investigated 7 commercial bribery cases and removed 2 unqualified partner entities. The corporation reinforced the "Seven Combinations" mechanism regarding case investigation, put forward the correction proposal to standardize the related management, lay emphasis on the political, legal and social effects of the investigation and underlined the economic effects. While investigating cases, it also emphasized the theoretical discussion and management innovation, achieving the management outcome of the *Case Investigation and the Establishment & Implementation of the Mechanism in Tackling Problems in the Root in State-Owned Enterprises*.

Education of Combating Corruption and Upholding Integrity & Development of Honesty and Integrity

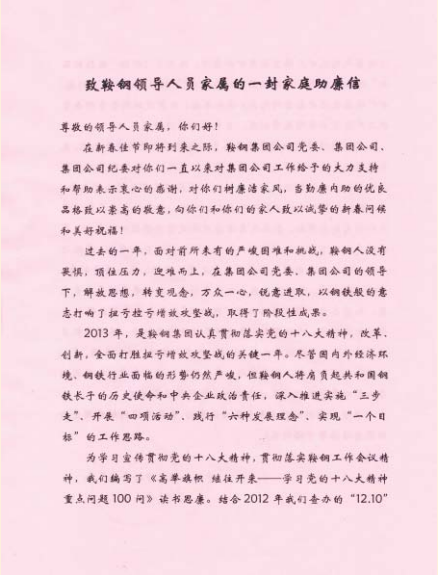
Integrity at work was highlighted in the corporate education. Adhering to the spirits of the 18th National People's Congress, Ansteel Group Corporation compiled and printed special publications under the "Reflect on Integrity in Reading" series such as the *Hold High the Banner and Carry Forward the Heritance into Future – 100 Questions around the Core of the 18th NPC Spirit* and *Shut the "Valve" of Malfeasance – Record of the Actual May 26 Case of Sales of Fake and Inferior Boteli Valves Handled by Ansteel*; developed the activity of "Learning from Guo Mingyi to be High-Quality Employees of Ansteel" to publicize the exemplary deeds of 50 honest and diligent models; and printed and distributed the *Ansteel Group Corporation Construction of System for Punishing and Preventing Corruption – Compilation of Cases for Warning and Education* in which 30 typical cases were selected and analyzed







Ansteel Group Corporation's series of Reflection on Integrity in Reading



致鞍钢领导人员家属的一封家庭助廉信

尊敬的领导人员家属：你们好！

在新春佳节即将到来之际，鞍钢集团公司党委、集团公司、集团公司纪委对你们一直以来对集团公司工作给予的大力支持和帮助表示衷心的感谢，对你们树廉洁家风，当勤廉内助的优良品格致以崇高的敬意，向你们和你们的家人致以诚挚的新春问候和美好祝福！

过去的一年，面对前所未有的严峻困难和挑战，鞍钢人没有畏惧，顶住压力，迎难而上，在集团公司党委、集团公司的领导下，解放思想，转变观念，万众一心，锐意进取，以钢铁般的意志打响了扭亏控亏增效攻坚战，取得了阶段性成果。

2013 年，是鞍钢集团认真贯彻落实党的十八大精神，改革、创新，全面打胜扭亏增效攻坚战的关键一年。尽管国内外经济环境、钢铁行业面临的形势仍然严峻，但鞍钢人将肩负起共和国钢铁长子的历史使命和中央企业政治责任，深入推进实施"三步走"、开展"四项活动"、践行"六种发展理念"、实现"一个目标"的工作思路。

为学习宣传贯彻党的十八大精神，贯彻落实鞍钢工作会议精神，我们摘写了《高举旗帜 继往开来——学习党的十八大精神重点问题 100 问》读书思廉。结合 2012 年我们查办的"12.10"

Ansteel Group Corporation printed and distributed *A Letter in Family-Supported Integrity to the Family Members of Ansteel Leaders.*

The Integrity Calendar compiled and printed by Ansteel Group Corporation.

individually. It compiled and printed the 2013 Integrity Calendar centering on the 18th NPC Spirit, Ansteel Spirit, Ansteel integrity ideology, Mengtai Spirit and integrity mottos; printed *A letter in Family-Supported Integrity to the Family Members of Ansteel Leaders* to conduct activities about family-supported integrity; organized employees to watch and study educational films like *Educational Textbook in Clean Performance of Official Duty for Cadres, Maintain the Purity of CPC and Stride to Great Rejuvenation* and the *Major Cases Caused by Off-book accounts*; renowned experts of the state were invited to deliver thematic lectures to raise the quality of the discipline inspection and supervision teams.

The Implementation of Efficiency Supervision

In 2012 Ansteel Group Corporation developed up to 505 efficiency supervision projects concerning reducing costs & increasing profits and checking supplied materials before acceptance and so on, made 809 management proposals and formulated 443 rules and regulations. It carried out special investigation of "Promoting Reform and Innovation and Facilitating Cost Reduction and Profit Increase", in which 38 items of special inspection briefs and 8 items of special inspection weekly report were issued and 87 suggestions and 9 supervision proposals were sent to the grass-roots entities. The special investigation was rated as an exemplary project in efficiency supervision of state-owned enterprises from 2009 to 2012 and the corresponding experience was introduced in the meeting of promoting efficiency supervision in centrally administrated enterprises, which was highly praised by the SASAC of the State Council.

Special clear-up was organized. According to the requirements of SASAC, Ansteel Group Corporation waged special clear-up campaigns against the bidding with borrowed qualification and lending qualification against rules and regulations in the engineering construction field, in which 428 projects were investigated and 8 external entities were restricted or denied market access. It also cracked down unqualified suppliers eliminating 119 unqualified agents.

Ansteel Group Corporation was introducing experience at the Conference of Promoting Efficiency Supervision of State-Owned Enterprises.

Communication with Interested Parties

While striving to create values, Ansteel Group Corporation, which is people-oriented and sticks to promises, takes into account the demands of interested parties by enhancing its communication with them and making a prompt response to their concerns so as to achieve a harmonious development with the government, shareholders, employees, customers, suppliers, communities, non-government (organizations (NGOs) and other stakeholders.

Communication with Interested Parties

Name of Interested Parties	Means of Communication	Expectation for Ansteel Group Corporation	Requirements of Interested Parties	Major Indicators
Government	Laws and regulations, policies, meetings, symposiums, statements, visits, annual conferences with local enterprises, and special liaison agency with local enterprises;	To achieve a steady business growth, pay taxes according to legal stipulation, increase employment opportunities, and promote a harmonious development of economy, society and environment for common prosperity;	To make contributions to a harmonious and resource-efficient society, and the sustained increase of fiscal revenues of local governments, and compliance with laws and regulations;	Total taxation, placement, non-profit programs for public, good and qualified environmental indicators.
Investors (represented by SASAC)	Laws and regulations, policies, attendance at meetings, resolution implementation, business performance assessment, regular reporting, communication, and statements;	To enhance profitability and core competitiveness to ensure the value maintenance and appreciation of state-owned assets;	Production safety, risk control, and enhanced capability for technological innovation to achieve sustainable development, and value maintenance and appreciation of assets;	Total profits, rate of return on net assets, average owner's equity, ratio of total costs to operating revenues, current asset turnover ratio, main business revenues, total costs, and aggregate assets and liabilities.
Other Shareholders	Shareholders' meeting, information disclosure and written notices of shareholders;	To enhance corporate value and market capitalization of listed companies, the rate of return on investment, and avoid risks;	Public disclosure of major information, equal access to opportunities, and protection of shareholders' interests;	Market capitalization of listed company, rate of return, and rate of return on investment in joint-venture projects.
Employees	Employees' Congress, rationalization proposals, symposium, suggestion solicitation, communication and online communication;	To achieve stable business and a sustained development, share the fruits in report and development, and enjoy more welfare and growth opportunities;	Occupational training, career development, welfare, and safe and clean working environment;	Employee satisfaction and loyalty, staff turnover rate, and input into training for employees.

Name of Interested Parties	Means of Communication	Expectation for Ansteel Group Corporation	Requirements of Interested Parties	Major Indicators
Customers	EVI system, daily contact with sales representatives, exhibitions, customers' conference, regular visits, and suggestion solicitation;	High-quality and low-price products and services, and more customized services;	To put emphasis on customers' demands, offer customized services, and improve the quality of products and services;	Customer satisfaction.
Suppliers	Field survey, contract negotiation, regular visits, tendering conference, and suggestion solicitation;	To provide long-term services, achieve stable and sustained earnings, and carry out sunshine procurements;	Reasonable price, stable policies, mutual benefits and win-win results;	Rate for project cooperation and contract execution.
Associations and Societies	To join associations and/or societies, assume positions and take an active part in activities ;	To fulfill responsibilities in the association and/or society and play an active role in various professional fields;	To take an active part in a activities for environmental protection, economic development and social progress;	Number of the social organizations joined, the annual fees paid and total sum of money donated.
Media and the Public	Press conference, media communication, information exchange and liaison via telephone, email, fax, letter, visit and website;	To follow the concepts of recycling economy and green steel, and adhere to sustainable development so as to set an example in social responsibility fulfillment;	In-time release of relevant corporate news;	Number pieces of news released, and collection of and feedback on public opinions.
Community	Joint community development, joint project development and regular communication;	To promote civilized production and achieve community harmony by providing a clean and healthy living environment;	To make no pollution or damage to environment, and provide resources for harmonious communities;	The amount of input into community development, and the number of pollution complaints.

Strategic Cooperation with Interested Parties

In 2012 Ansteel Group Corporation concluded strategic cooperation agreements with many enterprises including Guangzhou Automobile Group Co., Ltd. (GAC Group), Dongfeng Nissan, Gree Electric Appliances, Inc. of Zhuhai and Midea Group, etc. based on the principles of sincere cooperation and mutual benefits. The interested parties would share the resource advantages in technical research and development in the iron & steel industry, steel processing and other aspects, establish cross-industrial strategic partnership and spur in-depth exchange and cooperation in greater dimensions and scope to realize win-win results and mutual development.

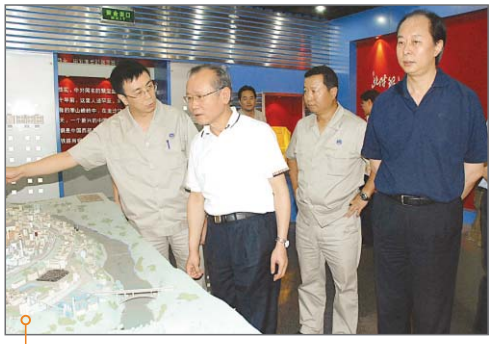
Ansteel Group Corporation and China FAW Group Corporation signed strategic cooperation framework agreements to further enhance the strategic partnership, extend the cooperative fields, consolidate and develop existing results by cooperation, exploit both sides' status preponderance in their industries, complement each other's advantages and strengthen the linkage of the industrial chains between iron & steel with automobile industries and its benign development. It signed the cooperation agreements and co-invested with International Steel Service Inc. (ISSI) of the USA to fund the Ansteel Iron Oxide Powder Co., Ltd., and drew upon the advanced manufacturing techniques and technology management of the joint venture to turn its ferric oxide powders into high-end raw materials for magnetic ferrite. Ansteel also concluded comprehensive strategic cooperation agreements with China Bohai Bank to further enlarge the cooperative fields and realize mutual development with both sides adhering to the principle of "long-term cooperation, inter-dependence, creation of value and common development". Besides, Pangang Group Company Ltd. and SANY Group concluded and signed strategic cooperation agreements to extend the cooperative scope and depth, give play to the complementary advantage of the industrial chain and increase the value of the industrial chain together, which would facilitate the upgrading of the iron & steel products of Pangang and generate new economic growth for both sides.

1. Ansteel Group Corporation signed strategic cooperation agreements with GAC Group and other 12 enterprises.
2. Ansteel Group Corporation concluded a strategic cooperation framework agreement with China FAW Group Corporation.
3. Ansteel Group Corporation signed comprehensive strategic cooperation agreements with China Bohai Bank.
4. Ansteel Group Corporation and ISSI of the USA co-invested the Ansteel Iron Oxide Powder Co., Ltd..

Exchange with Interested Parties

Ansteel Group Corporation attaches great importance to the exchange with the governments, customers, suppliers, strategic partners and other interested parties, made exchange on a wide variety of topics such as deepening of cooperation between enterprise and local governments as well as the clients' needs, and extend the cooperative space for mutual benefits by exploiting each other's advantages to boost business and step up the development of local economy simultaneously.

On August 20, 2012, Huang Shuhe, Deputy Director and Deputy Secretary of Party Committee of SASAC, paid an inspection visit to Pangang Group Company Ltd. and acclaimed its progress in reform and development. Mr. Huang also put emphasis on the necessity for the cadres and employees of Pangang to free minds, freshen up ideas, broaden the way of thinking, retain confidence and remain in high spirits so as to create quality products and selling points, and urged them to direct attention to four aspects – quicken the pace of transformation and upgrading, create new efficiency growth, take efforts to solve problems rooted in history and reinforce reform and management, to forge a strong and excellent enterprise with sustainable development.



Huang Shuhe, Deputy Director and Deputy Secretary of Party Committee of SASAC, paid an inspection visit to Pangang Group Company Ltd.

Leadership of Ansteel Group Corporation was in a talk with leaders of Fujian Province.

Chen Zhenggao, Governor of Liaoning Province, paid an inspection visit to Ansteel Group Corporation.

Leadership of Sichuan Province paid an inspection visit to Pangang Group Company Ltd.

Leadership of Ansteel Group Corporation met the people in charge of State-owned Assets Supervision and Administration Commission of Guangzhou Municipal Government and part of enterprises in Guangzhou.

Leadership of Ansteel Group Corporation conducted exchanges with leaders of CITIC Group Corporation.

1 Visits for Study and Investigation to Baosteel Group Corporation and Shagang Group

From October 24 to October 27 of 2012, a delegation of over 60 people of Ansteel Group Corporation led by Zhang Guangning, Chairman of Ansteel Group Corporation and Secretary of the Party Committee, and Zhang Xiaogang, President, paid a visit to Baosteel Group Corporation and Shagang Group for study and investigation purposes. The delegation members were divided into five specific groups focusing on the construction of the Board of Directors & group supervision, strategic planning and project investment, iron & steel techniques and technology, marketing and procurement, and human resources & finance respectively and conducted one-on-one exchanges with their counterparts in Baosteel Group and Shagang Group. By learning from each other, the enterprises, with united endeavor, contended with the complicated and capricious crises and challenges both at home and on the globe to contribute to China's development into an iron and steel powerhouse in real sense.

2 The 3rd Technological Exchange Symposium between Ansteel Group Corporation and China Steel Corporation in Taiwan

On December 14, 2012, the 3rd Technological Exchange Symposium between Ansteel Group Corporation and China Steel Corporation was held at China Steel in Taiwan, in which the people in charge and experts from both sides conducted comprehensive exchanges and discussion around many dimensions such as the techniques and technology of steel and metallurgy industry and management and operation in face of the unprecedented crisis in the iron & steel industry and promoted the common development of both sides by learning from each other. In November 2009, Ansteel Group Corporation and China Steel Corp in Taiwan signed technological exchange and cooperation agreements, deciding to hold regular technological exchange symposium annually afterwards, and built sound relationship for exchange and cooperation.

3 Exchanges between Ansteel Group Corporation and Pohang Iron and Steel Co., Ltd

In 2012, Ansteel Group Corporation and Pohang Iron and Steel Co., Ltd. (POSCO) of South Korea conducted comprehensive and in-depth exchanges on strategic research, industrial context, human resources, management of cutting-edge technology in iron & steel and IT construction and so on. POSCO and Ansteel Group Corporation maintained a good relationship for exchange and cooperation for years, which would drive the cooperation onto higher levels.

4 Central Media Interview Team at Ansteel Group Corporation

After Ansteel Group Corporation strode into the Fortune 500, the central media interview team made up of journalists with China Metallurgical News and journalists with a series of central media including the Xinhua News Agency, *People's Daily, Economic Daily, Guang Ming Daily, and Workers' Daily, etc.* in Liaoning went to the production frontlines of multiple production bases of Ansteel Group Corporation to conduct on-site interview, focusing directly on the achievements of Ansteel in green production, resource recycling and diversified operation, etc. and ingrained cultural heritage.

Participation in Activities Organized by Associations/Societies

Ansteel Group Corporation's Membership in Major Associations/Societies

NO.	Name of Association/Society	Ansteel Group Corporation's Status in the Association/ Society	Association/Society's Tasks
1	World Steel Association	Vice Chairman	To promote exchange and cooperation among international iron & steel enterprises;
2	Vanadium International Technical Committee	Member	To promote the scientific and technological progress of the international vanadium industry and facilitate the application of vanadium;
3	China Enterprise Confederation China Enterprise Directors Association	Vice Chairman	To promote institutional, management, and technological innovation;
4	China Federation of Industrial Economics	Vice Chairman	To promote China's modernization, institutional reforms in industrial management, and scientific and technological innovation;
5	China Iron & Steel Association	Vice Chairman	To establish and enhance industrial coordination and self-discipline, and promote the sustainability of Chinese iron & steel enterprises , to enhance their competitiveness;
6	Vanadium & Titanium Resources Multi-purpose Utilization Industry Technological Innovation Strategic Alliance	Director-General	To study the critical core technology that restricts the industry development and provide powerful support for the improvement of vanadium and titanium resources multi-purpose utilization in our country;
7	The Chinese Society for Metals	Vice Director-General	To promote technological exchange and cooperation in metallurgical technologies and manufacturing;
8	China Tendering & Bidding Association	Executive Director	To organize tendering and bidding, and promote exchange and cooperation in industry management;
9	China Occupational Safety and Health	Executive Director	To promote production safety and occupational safety and health;
10	China Association for Labor Studies	Vice President	To promote labor studies, consultation, publicity and exchange;
11	China Association of Chief Financial Officers	Vice President	To promote scientific management and internal control, and improve financial management;
12	China Audit Society	Director	To promote audit research and exchange, and the development of the audit industry;
13	China Tax Institute	Director	To study taxation theories, policies and institutions, and conduct academic exchanges in economics and taxation;
14	China Price Association	Director	To study price theories, policies and conduct academic exchanges and cooperation
15	China Association of Quality	Member	To conduct national quality advancement programs, and promote advanced concepts, methods and technologies for quality;
16	China Association of Plant Engineering	Vice President	To promote the modernization of equipment management, and conduct exchange and cooperation in equipment management;
17	China Institute of Internal Audit	Director	To promote self-discipline for internal audit to ensure the independence and authoritativeness of internal audit;
18	China Metallurgical Construction Association	Vice President	To promote the sustained and sound development of the metallurgical construction industry;
19	China Group Companies Association	Vice President	To promote the establishment of modern corporate systems in large companies, conglomerates and leading companies;
20	China Enamelware Industry Association	Member	To advance the application of new technologies, equipment and materials, and make proposals on the adjustment of the product mix and technological upgrading of products;
21	China Vanadium Association	President	To promote highly efficient utilization and scientific development of vanadium resources in China and give a full play by focusing on the progress of vanadium technology and expansion of vanadium applications;
22	China Association of Resource Comprehensive Utilization	Vice Director-General	To conduct the research and communication on the comprehensive resource utilization and promote the continuous development of comprehensive resource utilization;
23	Wire Rod Product Branch Association of China Steel Construction Society	Director-General	To protect industrial interests and promote industrial development by performing its function of organization, coordination and information exchange;

On May 8, 2012, Zhang Xiaogang, Chairman of the World Steel Association and President of Ansteel Group Corporation, delivered a keynote speech "Developing Innovative Green and Low-Carbon Technologies to Promote the Sustainable Development of the Steel Industry" in the 7th China International Steel Congress held in Beijing. Combining the practice in building green sample plants in Bayuquan iron & steel base of Ansteel Group Corporation, Mr. Zhang in his speeches introduced the experience and thoughts in energy conversation & emission reduction and development of green steel and the circular economy ideology that advocated low-carbon economy and the coordinated and harmonious development of economic growth, social progress and environment protection.

On April 12, 2012, the working conference of the expert committee in blast furnace production technology of China Iron and Steel Association (CISA) in 2012 was held at Ansteel Group Corporation in which experts in blast furnace production technology from Ansteel, Baosteel, Wuhan Iron and Steel, Shougang Group, Shagang Group and other enterprises discussed together the production technologies covering the duration of blast furnace, technology of beneficiated burden material for blast furnace and blast furnace operation, etc. and pooled the industrial strength to solve problems related to large blast furnace production technology.

On September 24, 2012, the 25th Annual Meeting of the Subsistence Security Symposium of China Steel Industry Union was held in Ansteel Group Corporation. Representatives in the meeting exchanged ideas based on the new situations, new tasks and new topics regarding the subsistence security of the Union and formed a series of excellent theoretical research results.

Zhang Xiaogang, President of Ansteel Group Corporation delivered a keynote speech at the 7th China International Steel Congress.

On September 26, 2012, the Experience Exchange Conference in the Innovation of Metallurgical Mines Management organized by the Metallurgical Mines' Association of China (MMAC) was held at Ansteel Group Corporation. More than 200 representatives from over 60 metallurgical mines-based enterprises at home as well as experts and scholars related to the corresponding sector attended the meeting. Centering on the theme of "Management, Improvement and Development", attendees discussed the ways to achieve innovation in management of the metallurgical mines-based enterprises and increase the corporate competence in the conference. Moreover, Ansteel Group Corporation's experience in the strategy-oriented comprehensive innovation in management was promoted as well.

Responsibility for Customers

Marketing Philosophy

The demands of customers are what we make utmost efforts to satisfy; the standards and plans of customers are also what we try every means to follow; the interests of customers are also what we do our best to safeguard. In that spirit, Ansteel Group Corporation implemented the customer satisfaction strategy across the board and established its marketing philosophy of "Customer First and Win-Win Cooperation".

Customer Service System Construction

Ansteel Group Corporation was committed to the win-win mutual development with clients and devoted itself to providing the best products and most satisfactory services. In adherence to its working ideology that "market criteria are the working yardsticks" and "product quality is the life of the enterprise", it set the target of improving the product quality and built the client-oriented "excellent service" system via continuous innovation in the client service model. It made the promise of "Four Guarantees", that is, guarantee the product quality, guarantee offering competitive prices, guarantee meeting the delivery deadline and guarantee after-sales services. And under the premise of fulfilling all promises, it serves clients in all fronts, turned the pure product sales into a comprehensive marketing brand with a combination of marketing, service and credit via underlining professional marketing and realizing service differentiation, and established new type of cooperation relationship based on sincere cooperation and mutual benefits.

The Corporation organized the marketing system seminar and invited experts and scholars from the R & D center of the State Council, Beijing University and University of Science and Technology Beijing to conduct studies and discussion in special topics including the tools and methods of reform and innovation, analysis and prediction of the status quo and future of marketing in the iron & steel industry, improvement in analysis of clients' psychology and techniques to develop clients, etc..

Ansteel established a strict confidential system keeping strict secret of customer information, contract terms and conditions and cooperation information and never disclosing the clients' information to any third party without the permission of clients. No client information leak occurred in Ansteel Group Corporation.

Employees of Ansteel Group (US) Company Ltd. in a business talk with clients.

Salespersons of Ansteel Group Corporation check product quality.

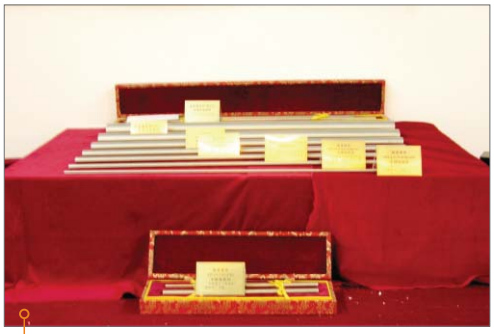
Case: Innovative Marketing Model for a Sharper Competitive Edge

In response to the market changes, Pangang Group International Trade Corporation devised new marketing models, established the concept of "Technology before Full Participation", set up joint laboratory with clients, and knew about the development direction of clients' products and clients' needs in products to provide clients new "custom" products.

Customer Satisfaction Management

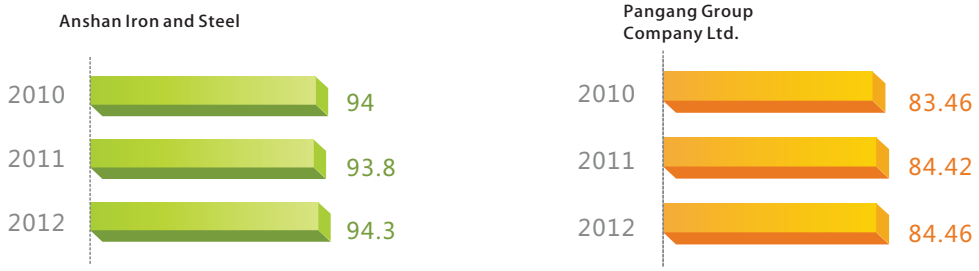
Ansteel Group Corporation kept improving the customer satisfaction management mechanism, formulated customer satisfaction management regulations and compiled customer satisfaction assessment reports. It established a regular customer visit system in each level to learn about the clients' needs, and improved the quality of service according to clients' opinions and suggestions to provide extraordinary services and ultimately enhance the customer satisfaction.

In 2012, Pangang Group Company Ltd. was awarded the title of "Best Supplier" by Dongfeng Commercial Vehicle Co., Ltd. for three consecutive years; Pangang Group Chengdu Steel and Vanadium Co., Ltd. was rated as "Supplier that Made Outstanding Contribution to China's Aerospace Cause" by China Aerospace Science and Technology Corporation (CASTC); and Pangang Group Jiangyou Changcheng Special Steel Co., Ltd. was conferred on the "Honorary Medal of Goods and Material Supplier in the First Manned Docking Mission" by CASTC.



Ansteel Group Corporation made great contribution to China's aerospace industry.

Customer Satisfaction %



Customer Visits

On November 29, 2012, leaders of Ansteel Group Corporation visited and investigated a series of clients closely related to the iron & steel industrial chain of Ansteel including Gree Electric Appliances, Inc. of Zhuhai,GAC Toyota Motor Co., Ltd., Midea Group and Galanz Group, etc., solicited opinions and suggestions in the product performance, quality and supplies and after-sales services of Ansteel Group Corporation, and learnt about the clients' business scale, product structure and procurement of steel materials needed in production. By visiting, Ansteel Group Corporation actively participated in clients' research and development of new products and technological upgrading, extended the customer-oriented sales service system and brought forward the partnership.

On April 25, 2012, the leadership of Ansteel Group Corporation made visits to many Korean enterprises including Hanjin P&G, Hyundai Corporation, STX Group, SeAH Steel and Hysco, etc., solicited opinions and suggestions in the product quality and after-sales services of Ansteel and discussed and exchanged opinions in the ways of enhancing cooperation.

The Cooperation between Ansteel Group Corporation and Guangzhou and the Pearl River Delta Regions & Product Promotion Conference was held in Guangzhou.

Leadership of Ansteel Group Corporation visited customers.

Case: Learning about Customer Needs and Seeking Win-Win Mutual Benefits

Ansteel Group Corporation attached great importance to the communication with customers and held a regular customer congress every year. In 2012, Anshan Iron and Steel invited more than 200 customer representatives from 135 enterprises across the country to the congress, learning customers' needs in products and services, exchanging ideas in further expanding cooperative sectors, enhancing win-win operations and promoting common development and establishing the bond of mutual benefits. And Pangang Group Company Ltd. invited 195 client representatives from 112 domestic enterprises to attend the 2012 Symposium with Customers of Pangang Group Co., Ltd. and learnt customers' needs in its products and services.

Anshan Iron and Steel held the 2012 customer congress.

Management System Certification

Anshan Steel Co., Ltd. obtained the certification of *ISO9001 Quality Management System, ISO14001 Environmental Management System, GB/T28001-2001 Occupational Health and Safety Management System and GB/T 23331 Energy Management System. The* automotive sheets obtained the certification of *ISO/TS16949 Quality Management System—Particular Requirements for the Application of IS09001 for Automotive Production and Relevant Service Part Organization*, and the petroleum pipes, casing pipes and line pipes the API (American Petroleum Institute) Monogram Licensing Program. Part of the major varieties of hot-rolled coil, cold-rolled and hot-dipped galvanized zinc plate and medium and heavy plate obtained the certification of JIS (Japan Industrial Standards), the certification expansion of CE-marked variety and specification for products exported to Europe. Ansteel Tiantie Cold-Rolled Steel Sheets Co., Ltd. obtained the certification of *ISO/TS16949 Quality Management System* of the automobile industry.

The quality, safety and conservation management system of Pangang Group Company Ltd. passed the annual audit of Beijing Grand Honour Management System Certification Co., Ltd.; and the steel rails and vanadium-made products export quality guarantee system of Pangang passed the audit of the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China with sustained qualification of export exempted of inspection. The quality management system of Pangang Group Chengdu Steel and Vanadium Co., Ltd. obtained the certification of Sichuan subsidiary of China Quality Mark Certification Group. And Pangang Group Jiangyou Changcheng Special Steel Co., Ltd. obtained the certification of ISO9001:2000 quality system of Sichuan Three Gorges Certification (STC).

Quality Management

Ansteel Group Corporation kept reinforcing quality management in the principle of "Quality First and User Utmost". In 2012, Ansteel Group Corporation integrated quality improvement with cost reduction & profits increase together focusing on the development of new techniques, new technologies and high value-added products that increased quality and reduced costs via technological innovation and providing technological support for increasing quality and benefits by its benchmarking platform. It strengthened the management of inspection before acceptance of the raw materials and fuels and conducted mapping studies in steel quality defect to seek for zero-defect. In addition, it tightened quality control in key working procedures, increasing the procedure capability and conducting inspection and analysis in the operation of quality indicators, to facilitate the quality of major working procedures.

In 2012, the hot-rolled fine grain ribbed steel bars for reinforced concrete, carbon steel wire rods for cold heading, structural steel sheets for bridges and low-carbon continuous hot dip galvanized steel strips produced by Angang Steel Company Ltd. and 9 products including seamless steel pipes for high-pressure boilers, cold-work die steel and turbine blade steel, etc. made by Pangang Group Jiangyou Changcheng Special Steel Co., Ltd. were awarded the "Gold Cup Prize" for the quality of metallurgical physical products of 2012 by CISA. And the quality steel sheets used for appliance and the second-grade and third-grade seamless steel pipes for nuclear power station of Ansteel Group Corporation were awarded the "Trailblazer Award in Product Development Market of China's Iron and Steel Industry" of 2012.

Overseas Business

As of the end of 2012, Ansteel Group Corporation had established 18 enterprises of various kinds abroad engaged in the iron & steel trade, mineral resources and investment with overseas businesses covering major regions of the world. For instance, Ansteel Group International Trade Corporation set up 14 overseas sales subsidiaries in the US, EU, Spain, South Korea, India, Japan, Hong Kong and Australia and so on;

Pangang Group International Trade Corporation established three overseas trade companies listed as Pangang HK Company Ltd., Pangang Europe Company, Ltd. and Pangang American Company Ltd.; and Pangang Group Vanadium Titanium & Resources Co., Ltd. held the shares of the Karara Mining Company in Australia via capital operation and investment.

Major Products

Anshan Iron and Steel Group Corporation boasts a complete series of products including hot- rolled coils and sheets, cold-rolled sheets, galvanized sheets, color coated sheets, cold-rolled silicon steel, heavy rail, medium and heavy plate, seamless pipes, and steel wire rod and wire rope. These products find their extensive application in mechanical, metallurgical, petroleum, petrochemical, coal, power, railway, shipbuilding, automotive, construction, household electrical appliances, and aerospace and national defense industries. In addition, Anshan Iron and Steel Group Corporation is engaged in the R & D and production of special iron & steel products to meet the special demands of some customers and requirements of state-level engineering projects.

Pangang Group Company Ltd. products, which assume distinctive features, include vanadium series like vanadium- nitrogen alloy, vanadium pentoxide and high-vanadium iron; titanium series like high-titanium slag, titanium dioxide, titanium sponge and rolled titanium; section steel series like steel rails for high-speed railways, *310* Z-shaped steel and oxygen cylinder base; sheet series like sheets for automotive frames, high- strength and deep drawing galvanized sheets, high quality aluminum-plated zinc sheets and other hot-rolled and cold-rolled sheets; pipe series like quality seamless steel pipes; special steel like high-temperature alloys and die steel; and quality steel rebar and wire rod.

Case: Leading Role in the Development of the Domestic Bridge Steel Industry

Ansteel Group Corporation was the first to manufacture bridge steels in China and led the development of the bridge steel at home. The "Made in Ansteel" mark could be traced from the symbolic projects in the China's railway bridges development such as the Wuhan Yangtze River Bridge, Nanjing Yangtze River Bridge and Jiujiang Yangtze River Bridge. Ansteel Group Corporation stuck to creating differentiated quality products and proactively engaged in the research and application of bridge steels in recent years. It formed the bridge steel-oriented EVI team, provided technological support to customers via "Early Vender Involvement", and won the bidding of a series of large-scale bridge construction projects successively such as Runyang Highway Bridge across Yangtze River, Sutong Bridge and Chongqing Chaotianmen Bridge. With its reliable quality, excellent services and great image, Ansteel Group Corporation won the bidding of the weather-proof bridge steels used in the Tanana River Bridge in Alaska, US, the bridge steel plate with moderate thickness used in the Zhuhai-Hong Kong-Macao Bridge and the paint-free, weather-proof bridge steel used in Houdingxiang Bridge above the Ring Expressway of Shenyang, etc. in 2012, which further increased its competency in the bridge steel sector and meanwhile displayed the image of Chinese iron & steel corporation to the world.

The weather-proof bridge steel manufactured by Ansteel Group Corporation was used in the Houdingxiang Bridge above the Ring Expressway of Shenyang, which was the first time for Ansteel to apply its products to the domestic bridge made by paint-free, weather-proof steels. The Houdingxiang Bridge above the Ring Expressway of Shenyang was the supporting infrastructure for the 12th National Games of 2013. In order to lessen the influence on railway transportation and the pollution on lakes during bridge construction and future maintenance, the paint-free weather-proof steel materials were selected to make the major component of the bridge. Instead of the coat of oil paint, the paint-free, weather-proof bridge could automatically form in the external surface a protective layer of oxidation, beautiful and maintenance-free with an anti-corrosion effect able to last for over 70 years, when exposed in the natural environments, so that it is conducive to protecting the ecology of the areas around the bridge.

The weather-proof bridge steel manufactured by Ansteel Group Corporation was used by the Sutong Yangtze River Highway Bridge.

The paint-free, weather-proof bridge steel manufactured by Ansteel Group Corporation was used in the Houdingxiang Bridge above the Ring Expressway of Shenyang.

Case: Support for China's Railway Construction

As one of the major production bases of steel rails for China's railways, Ansteel Group Corporation owned two production bases, the Large Factory of Angang Steel Company Ltd. and the Vanadium Rail Beam Factory of Pangang Group Company Ltd., which took the lead in output scale, variety quality and market shares at home. It successfully developed the heavy rails for the high speed of 200 km/h in 2000 and developed the first heavy rails for the high speed of 350 km/h in China in 2004. In recent years, the high-speed heavy rails of Ansteel Group Corporation were widely used in multiple railway lines for passenger traffic such as Beijing-Tianjin, Beijing-Shanghai, Wuhan-Guangzhou, Zhengzhou-Xi'an, Shanghai-Hangzhou, Shenzhen-Guangzhou and Chengdu-Chongqing. In 2012, Ansteel Group Corporation provided nearly 400,000 tons of 350km/h high-speed heavy rails and 50,000 tons of supporting high-speed switch rails for Beijing-Guangzhou high-speed railway and offered Harbin-Dalian high-speed railway, the first high-speed railway across alpine region in the world, 160,000 tons of high-speed heavy rails which accounted for 75.5% of the total quantity demanded by the whole line. The new cross-section, high-strength steel rails used in heavy haul railways developed by the corporation achieved batch production and were used in the Daqin heavy haul railway at home.

The high-speed heavy rails and high-speed switch rails manufactured by Ansteel Group Corporation were used in Beijing-Guangzhou high-speed railway.

The heavy rails produced by Ansteel Group Corporation.

The heavy rails produced by Ansteel Group Corporation were used in the Daqin heavy haul railway.

Case: Support for the Construction of National Energy Projects

In 2012, Ansteel Group Corporation undertook the research & development task of the X80-grade severe deformation-resisting pipeline steels hosted by the CNPC and succeeded in providing supplies to the national key project – the CNPC West-East Natural Gas Transmission Pipeline III Project, which met the needs of high-grade pipeline steels in construction. This product filled the blank in China, improved the capability of independent innovation and core competency of China's iron & steel and pipe-making industries, provided reliability for the national energy pipelines construction and had great social benefits. The pipeline steel-based products of Ansteel Group Corporation were used in dozens of important pipeline projects both at home and abroad successively including West-East Natural Gas Transmission, Shaanxi-Beijing Pipeline II, Sichuan-East Natural Gas Transmission and China-Central Asia Natural Gas Transmission Pipeline, etc., which made it the major supplier to China's west-east natural gas transmission pipelines.

In order to realize the domestication of the steel for domestic strategic energy reserve, Ansteel Group Corporation developed the home-made nickel steel product series of which the 3.5% nickel steels, 5% nickel steels and 9% nickel steels in succession passed the certification of the China Standardization Committee on Boilers and Pressure Vessels and classification societies of many countries. The successful development and realization of batch production of the nickel steel series represented by the 9% nickel steel provided important guarantee for the domestication of the steel for domestic strategic energy reserve.

The X80 steel pipes manufactured by Ansteel Group Corporation.

The nickel steel products manufactured by Ansteel Group Corporation.

Case: Support for the Marine Development

Ansteel Group Corporation was the first in China to conduct research on steel for offshore platform. The corporation had been closely tracing the development orientation of steel used in offshore platform for years and strengthening technological exchange and cooperation with customers in the lower end of the industry chain to allow products to better meet market needs. In 2010, Ansteel Group Corporation became the first domestic enterprise that gained the certification of F620 and F690 ultra-strength steel for offshore platform by classification societies. At present, Ansteel Group Corporation ranked No. 1 in its steel grade and variety numbers of the certified steels for offshore platform. The steels for offshore platform manufactured by Ansteel were not only applied in various waters of China but also supplied to the marine engineering projects in the US, Egypt, Singapore, Norway and other countries built by enterprises like Dalian Shipbuilding Industry Co., Ltd..

Supplier Management

Construction of the Procurement Management System

Ansteel Group Corporation kept facilitating the construction of the management system for centralized procurement and brought into full play the synergy effect of large-scale procurement and management. In the principle of "Centralize the large and disperse the small", it optimized the catalogue of centralized procurement to carry out centralized control over bulk goods and materials and formed working group for the procurement of bulk goods and materials and group for procurement price policy, enhancing the association of "procurement, production, research and sales" to improve the procurement mechanism.

Supplier Management and Evaluation

Ansteel Group Corporation stepped up the construction of the supply chain and inspired green procurement. It built an information platform for qualified suppliers and conducted regular evaluations of suppliers in terms of qualification and capability, product quality, contract execution, after-sale services, environmental protection and integrity and honesty, etc.. And it strengthened the cooperation with suppliers that provided quality products and enjoyed good reputation and clearly required the suppliers that provided products hazardous to environments and occupational health and flammable, explosive, virulent and harmful products to possess the capability of recycling and disposing packaging materials and wastes, obtain relevant management system certifications and meet the requirement in safety and environmental protection, etc. of the country.

Implementation of Sunshine Procurement

Ansteel Group Corporation advanced the management system and working process of bidding and tendering in accordance to the corresponding laws and regulations to ensure a normative, orderly and transparent bidding. It established pricing mechanism for bidding evaluation, focusing on multi-dimensional comparison and analysis and scientifically setting the bidding evaluation price. By fully implementing the tendering network construction, it standardized the online release process of bidding and tendering information, improved the monitoring system for bidding and tendering with newly added online monitoring facilities, realized monitoring of the whole process of bid opening and evaluation, and ensured the normative operation of each process of bidding and tendering.

CHAPTER 03
Business Performance

Major Business Indicators
Capital Operation
Financing Management
Technological Innovation
Informatization Construction

Major Business Indicators

Production and Sales Volume of Ansteel Group Corporation

Units: ten thousand tons

Major Financial Indicators of Ansteel Group Corporation

Units: one hundred million yuan

Launch of the Loss Reduction, Loss Control and Efficiency Improvement Campaign

Work Approach

Ansteel Group Corporation, focusing on the core objective of loss reduction, loss control and efficiency improvement, has proposed the work approach regarding the implementation of Three Step Process, the launch of Four Campaigns and the building of Six Concepts of Development so as to achieve the ultimate One Objective.

Implementation of Three Step Process: The first step is to speedily curb the expansion of loss amount by virtue of the determination of the objective and measures concerning loss reduction, loss control and efficiency improvement. The second step is to formulate the production and operation plan for next year together with the technical transformation scheme for next stage. The third step is to further enhance the corporate governance structure of Ansteel Group Corporation and establish an operation mode with a large-group orientation.

Launch of Four Campaigns: The first campaign is to conduct among the cadres of or above the level of deputy division director chief across the group the problem checking and advice or suggestion offering. The second is to advocate the spirit of Ansteel Group Corporation Constitution and the Querying the Corporation Online through the real-name system. The third is to plan for the future development of Ansteel Group Corporation with a global perspective. The fourth is to hold the expert forum in connection with the future evolvement of Ansteel Group Corporation so as to offer advice for the scientific development of Ansteel.

Establishment of Six Concepts of Development: The first concept is to build the concept of overcoming the difficulties all by one's own willpower and strength with the view to guiding the broad cadres and employees to act positively instead of being expectant of and reliant upon others' help while grudging the sad fate at the time, stick to the inward strength and work all efforts to improve. The second is to set up the concept that the market standard equals to the scales of work and enhance the work in the enterprise according to the market standard so as to respond quickly and synchronize with the market. The third is the building of the concept that the Variety and Quality Stand for Life of Enterprise so as to follow the development path of quality and benefit by means of enhancing the grade of product variety and quality as well as the capability of benefit-making. The fourth is to put forward the concept that Innovation Brings Competitiveness so that innovation will be the conscious action of all employees through enhancement of innovation awareness, building of innovative environment and formation of the mechanism for innovation.

Ansteel Group Corporation held a mobilization meeting on loss reduction, loss control and efficiency improvement.

The fifth is the development of concept that Efficiency Means Benefit so that both work efficiency and competitiveness in the market can be improved thanks to the pressure from the market reaching out to each entity and individual. The sixth is to foster the concept that the Execution Power is Productivity so that the target tasks determined by Ansteel Group Corporation can be fulfilled by way of the implementation of the accountability system, the real practice and solid work, assessment enhancement and actual results emphasis.

Fulfillment of One Objective : Building the Most Competitive Transnational Iron and Steel Group in the World.

Work Measures

I. In order to further curb the declining trend of operation performance, Ansteel Group Corporation held a mobilization meeting on loss reduction, loss control and efficiency improvement, conducted all-around analysis of production and operation, adjusted the operation indicators of subsidiaries, delivered the indicators for the year to reduce loss, control loss and improve efficiency and concluded the annual letter of responsibility on operation performance with various entities.

II. The overall production and operation control and management in both Anshan Iron and Steel Group Corporation and Pangang Group Company Ltd. has been promoted fully and the synergy effect was also brought to full play. Various production bases shall strengthen the control of production process and benchmark with advanced enterprises in terms of major technical and economic indicators so as to figure out the gap, tap the potential and improve the efficiency. On the other hand, efforts shall also be made to enhance the R&D of new products and adjust the product structure, add the weight of unique and leading products with sophisticated technology, premium quality and high added value.

III.The third measure is to pay close attention to the changes in market and continue to strengthen the efforts of cutting the procurement cost. Efforts will be made to improve the material procurement benchmarking index system, learn from and refer to advanced experience and practice, analyze the gap and formulate the measurements to improve the capability of procurement management. Meanwhile, the collaborative tendering will be promoted to cut the procurement cost and dynamic procurement will be adhered to on the basis of raw material and fuel procurement to minimize the procurement cost.

IV. The fourth is to build the new type marketing pattern by virtue of system and mechanism innovation. The endeavor is to strengthen the product sales in the near-field market and shorten the diameter of sales to give full play to the geographic advantage of products. Close attention will be also paid to the global market trends so as to conduct well the synergy of export and sales in the domestic market and adjust in a dynamic way the direction of the product sales.

V. The fifth is to address the process issue and quality bottlenecks through technological reform to enlarge the potential of cost reduction and efficiency improvement. The role of the technology innovation will be exerted in such reduction and improvement. The new process, new technology and high added value product with reduced cost will be developed and the bottlenecks restricting the improvement of variety and quality will be addressed through technology transformation.

VI. The sixth is to make resource-oriented enterprises an edge and achieve a sustainable development. Greater support shall be given to such resource-oriented enterprises to spur them on amid the opportunities of the market to boost development and score more profits.

Capital Operation

The asset replacement plan between Anshan Iron and Steel Group Corporation and Ansteel Group Corporation have been formulated so as to boost the optimized combination of resources in Ansteel Group Corporation, standardize and address the daily related transaction between Anshan Iron and Steel Group Corporation and Angang Group International Trade Corporation, the entity subordinated to Ansteel Group Corporation, improve sound image of Ansteel Group Corporation in the capital market. Ansteel Group Corporation conducted the exchange of 80% equity interest in Angang Cold Rolled Steel Plate (Putian) Co., Ltd. with the total assets replacement for the domestic trade business in Angang Group International, and the difference in transaction value was supplemented by cash. On the other hand, the cash was input to purchase the 45% equity in Tianjin Angang Tiantie Cold Rolled Sheet Co., Ltd. held by Anshan Iron and Steel Group Corporation. The value preservation and increase of state-owned assets has been fulfilled finally for the benefit of core competence boost through the consolidation of industry chain of Anshan Iron and Steel Group Corporation and improvement of sales system thanks to asset replacement.

Financing Management

In line with the principle of centralized management of funds, Ansteel Group Corporation exercises unified management over the external borrowing, bond issuance and financing leasing. In 2012, Ansteel Group Corporation issued bonds worth RMB 18 billion in total so as to reduce the cost of financing, explore the direct financing business and add some direct varieties of financing including the super and short-term commercial paper. Meanwhile, the efforts have been put to develop the new financing approach, capitalize on the international low interest rate financing platform, conduct trade financing including the borrowing of overseas loan under domestic guarantee and import bill advance by overseas institution and borrow the syndicated loan for Xichang Project to ensure the smooth progress of the project construction.

Technological Innovation

Building of the Technological Innovation System

Ansteel Group Corporation has further optimized the technological innovation system through the perfection of R&D mechanism, promotion of R&D means construction, enhancement of budget input in R&D expenditure and other measures.

Optimization of the Encouragement Mechanism: With a view to mobilizing the initiative of technology R&D and improving the operability of technological achievement assessment, Ansteel Group Corporation has set forth the regulations regarding the management of R&D collaborative projects and perfected the detailed rules on the selection of critical scientific and technological awards. Pangang Group Company Ltd. has formulated a series of systems including the guiding opinions on technological innovation awards, regulations on the technological innovation promotion award, regulations on major program subsidies and regulations on technology transfer so as to further enhance the incentive effect of technology awards in the technology innovation.

Management of R&D Expenditure: A technological expenditure statistics and management information system was developed by Ansteel itself so that the accurate retrieval, quick processing and checking of expenditures in technology activities, R&D and others can be managed in a standardized method. Such system has been promoted and applied inside Ansteel Group Corporation. SASAC especially introduced it as a feature at the exchange meeting on the management of statistic information on technology expenditures, which has been recognized by SASAC and relevant state ministries.

Establishment of R&D approaches: the National Key Lab of Vanadium and Titanium Resources Multi-purpose Utilization has been completed and accepted by the Ministry of Science and Technology. The lab signifies the official founding of an open base for carrying out basic research in the vanadium and titanium resources multi-purpose utilization sector, research on key generic technology as well as gathering and fostering outstanding technology talents. The lab would drive the improvement of utilization and R&D of vanadium and titanium magnetic iron ore in our country as well as the technology progress in the industry. An extra-thick plates institute was established to focus on line of products such as nuclear power steel, hydro power steel, high strength ship plate steel and oceanographic engineering steel and promote the transformation of extra thick plates from strategic product to top product across the world. A center for titanium dioxide product application was founded to develop the products satisfying the customers' needs by virtue of technology innovation and services. The ship building steel lab has become the key lab of Liaoning Province and now applies for the approval of national key lab. Last but not the least, a range of facilities such as pilot line of automobile steel R&D, automobile plate forming and simulation lab, automobile and household appliances steel surface treatment lab and automobile plate electric welding and laser processing lab.

Enhancement of industry-university-research combination: The Third Generation Ultra High Strength and High Ductility Automobile Plate Development Based on the National Program on Key Basic Research Project (973 Program) in cooperation with Shanghai University has been industrialized and put into trial production. The Steel and Iron Generic Technology Collaborative and Innovation Center has been jointly established with University of Science and Technology Beijing and Northeastern University. Moreover, Liaoning Magnesite Industry Collaboration and Innovation Center in alliance with University of Science and Technology Liaoning and Rail Welding Lab with Railway Administration of Zhengzhou have been established. On the other hand, the strategic cooperation framework agreement has been concluded with higher education institutions and scientific research institutions including Xihua University, Chengdu Branch of Chinese Academy of Sciences and Petroleum Pipeline Institute of Sinopec Group so as to back up the deepened technological cooperation. Last but not the least, Pangang Group Company Ltd. has become the first academician-expert workstation at the provincial level in Sichuan Province.

Ansteel Group Corporation held the 2012 Technological Innovation Work Meeting.

United effort of Ansteel Group Corporation and Northeastern University to further the school-enterprise cooperation.

Academicians of China Academy of Engineering and China Academy of Science made a study visit to the pilot plant of vanadium and titanium resources multi-purpose utilization in Pangang Company Ltd.

Achievements of Technological Innovation

With continuous expansion of investment in technology, Ansteel Group Corporation has fulfilled the promotion of product upgrading through technology innovation and therefore enhanced the competitive advantage. In 2012, Ansteel Group Corporation invested RMB 7.19 billion in technology, accounting for 5.15% of main business revenue.

Totally16 projects, including such national scientific and technological demonstration projects as New Generation Nuclear Power Technology Steel Series Products R&D together with Key Technology and Demonstration of Highly Efficient Vanadium and Titanium Magnetic Iron Ore Dressing, have been approved. The task regarding Key Technology R&D of Utilization of Blast Furnace Slag with High Titanium Content under the Key Projects in the National Science & Technology Pillar Program has been inspected and accepted by the Ministry of Science and Technology. The Research on Technology Optimization and Industrial Application of Step-by-Step Middling Flotation of Hematite Containing Carbonate under the National Mineral Resource Preservation and Comprehensive Utilization Demonstration Program has enabled the effective application of the idle ores which were formerly unable to handle

and thus improved the utilization ratio of resources. The independently developed system of coke oven gas injection into blast furnace has been put into trial operation, which fulfilled the mixed injection of coke oven gas and pulverized coal on an extra-large blast furnace across the world for the first time and thus became the model of the new generation low-carbon steel-making advanced process and technology. On the other hand, it was also the first time that the production ferric stainless steel was tried on the plain carbon steel line by top blown converter process in the world. The ferric casting blank and hot- rolled coils manufactured in such method has addressed the technical issue of stainless steel smelting in the converter. The stability of large deep open pit rock slope and treatment technology has reached the international leading level. The direct reduction of red chrome was adopted in the pilot lines by comprehensive utilization of new process so as to produce the qualified slag of vanadium and chromium. The grade of artificial rutile reached 88.49% in the mid range experimental line of high-grade titanium-rich materials. The pilot line of low-temperature chlorination was under stable operation across the whole process.

Technological Exchange and Cooperation

Expansion of technological exchange pipeline and broadening the communication in special fields to build information platform for technology R&D – The 3rd Technological Exchange Symposium between Anshan Iron and Steel Group Corporation and Sinosteel Corporation in Taiwan was held to exchange views around enterprise management, steelmaking, cold rolling and information application. The exchange was also conducted with Kobe Steel, Ltd. regarding the premium wire rod production process and technology. Regular exchanges have also been launched with JFE Steel Corporation regarding energy saving, environment protection and coking sector. The cooperation with Sumitomo Electric Industries focused on the testing of vanadium battery electrolyte index. Last but not the least, the exchange and cooperation were conducted with GFE Umwelttechnik GmbH regarding optimization technology of vanadium oxide production process, vanadium-aluminum alloy production and detection technology.

In its attempt to lay the way open for academic exchanges, the Corporation invites premier experts from across the nation and those abroad to deliver lectures, and attends various nationwide academic exchange activities such as China International Steel Congress, Academic Annual Meeting of China Association for Science and Technology (CAST) as well as international academic conference. In this way, access to technology information has been widened and the direction for industry development and cutting-edge technology were able to be tracked. In 2012, Ansteel Group Corporation organized and took part in over 30 academic activities at home and abroad with over 1,000 person-times. In the same year, altogether 45 papers have been included by the main four search issues (SCI, EI, ISTP and ISR).

Assuming the Responsibility of National Standards Formulation

Ansteel Group Corporation has been responsible for the formulation of over 40 national standards in succession, such as the *Ship and Ocean Engineering Structural Steel, the Structural Steel for Bridge and 9Ni% Steel Plates for Low Temperature Pressure Vessels* and has exerted its leading role in the national and industrial standard sector for metallurgical products. In 2012, three national standards were formulated by Anshan Iron and Steel Group Corporation, namely *the Steel Plates for Nuclear Power Plants. Part 1: Carbon and Low Alloy Structural Steels*, the *Cold Rolled Steel Sheet and Strip for Appliance* and *the Cold-rolled Quality Carbon Structural Steel Sheets and Strip*, was approved and recognized to have reached internationally advanced levels. Pangang Group Company Ltd. was responsible for drawing up three standards concerning ferrous metallurgy industry, namely the *Vanadic Oxide, the Subtraction Method to Detect the Content of Vanadic Oxide and Vanadic Tetraoxide* and the *Acid Dissolved Titanium Slag* have been approved by the Ministry of Industry and Information Technology.

Intellectual Property Management

In 2012, Ansteel Group Corporation had 1,550 national patents (ratio of invention patents: 48.9%), 1,145 state authorized patents, 9 foreign authorized patents and 1,077 accredited proprietary technologies. There have been 3 programs, such as Molten Steel Slag Thermal Processing and Metal Recycling Technology and Application, winning the Second Class Award of the State Scientific and Technological Progress Award. Moreover, Ansteel Group Corporation won 34 scientific and technological progress awards at province level and within industry. At the 7th International Invention Exhibition, Ansteel Group Corporation was awarded 39 patent awards, among which 10 were gold awards, 13 were silver awards and 16 were bronze awards. The technology on Rail Heat Treatment Method and Rail Heat Treatment Unit was awarded Excellence Award of the 14th Chinese Patents of State Intellectual Property Bureau. Anshan Iron and Steel Group Corporation was rated as Leading Enterprise in Intellectual Property of Liaoning Province.

	2010	2011	2012
National Patents	1357	1598	1550
State Authorized Patents	952	1227	1145
Foreign Authorized Patents	8	11	9
Accredited Proprietary Technologies	1123	1162	1077
State Scientific and Technological Progress Award	2	2	3
Provincial Scientific and Technological Progress Award	22	29	22
Industry Scientific and Technological Progress Award	9	11	12

New Product R&D

Year 2012 witnessed quite some new breakthroughs of Ansteel Group Corporation in R&D of steels for automobile, nuclear power, energy, shipping, petroleum, railway, electrical engineering and other industries as well as vanadium-titanium products. The proportion of new products amounted to 24.09%. On the other hand, Ansteel Group Corporation was the first to apply converter melting, ASP hot rolling and other processes to produce high strength and ductility cold-rolled steel for automobile, which was then successfully adopted to make components and realized the leading role in the second generation of automobile steel technology. As for nuclear power steel for nuclear reactor containment, key equipment for nuclear island and supporting structural parts for nuclear power, Ansteel Group Corporation maintained its leading position in technology and became the sole enterprise to produce 15MnNi - the support steel for nuclear island. Development of national key model of nuclear product was successful and the specifications of forged ring hit the national record. Multiple production and technical bottlenecks have been broken through, and the capability to cover all varieties of nickel series steel has been achieved so that the national energy strategic reserve requirement for localized production of steel has been fulfilled. The performance of steel for polar icebreaker and high magnetic induction grain-oriented silicon steel reached internationally advanced level. The steel for high-speed train bogies and X80 grade high deformation resistant pipeline plate have been localized and Ansteel has been obtained the supplier qualification of the axle shaft steel made by continuous casting technique by the Ministry of Railways. The developed corrosion resistant alloy heavy plate has enriched the specifications and varieties of such plate within Ansteel Group Corporation. The successful development of pure titanium cold-rolled coil, TC4 titanium alloy wire rod and cold-drawing pure titanium wire has constituted the complete titanium industry chain.

By adopting an independent design and development approach, and through conducting systematic R&D work in such categories as metallurgy, material, techniques, equipment and controlling, Ansteel Group Corporation has fulfilled the full coverage of parts and components for home appliances and become the top supplier of premium quality home appliance plate in the world. Pangang Group Chengdu Steel & Vanadium Co., Ltd. has realized the full coverage of varieties and specifications for nuclear power tubes below 660 mm and had the capability to produce the seamless steel pipes to support the supply to nuclear power station. Such capability has played an important role in promoting the development of our country's nuclear power industry and localization of nuclear power tubes.

Development of the new steel rail to serve the National Games

Ansteel Group Corporation also has explored the products in the newly-emerged sector and independently developed and produced 59R2 beam channel to be applied in Shenyang Modern Tramcar Engineering Project and serve the 12th National Games held in Liaoning Province. As the beem channel may avoid the conventional steel rail from affecting the traffic of other vehicles and is characteristic of low operation noise, strong stability during transport and fulfillment of green and low-carbon transportation, the product stands the direction of future urban rail transport. As the first enterprise to produce such rail in the country, Ansteel Group Corporation is also the only enterprise on the globe to score the feat of series production of beam channel.

Development of the high pressure boiler tube to inspire the evolvement of power generation technology

The high alloy T91 ultra-supercritical high pressure boiler tube has been successfully developed to be adopted in the production of the ultra-supercritical power generation units, boiler super-heater and heat exchanger of ultra-supercritical power generation unit. As the internationally advanced coal-fired boiler power generation technology, ultra-supercritical power generation has the advantages of high power generation efficiency, low coal consumption and good reliability, substantial reduction of environmental pollution, which makes it a tendency to adopt such technology in the construction of coal-fired thermal power generation unit on a worldwide basis in the future.

Informatization Construction

Planning for Informatization Development

Centering on the overall object of informatization in centrally administered enterprises during the "12th Five-Year Plan" period and according to the plan of Ansteel Group Corporation strategic development, *the Plan of Ansteel Group Corporation Information Application Strategic Development from 2013 to 2015* (the "Plan") has been rolled out according to the needs of Ansteel Group Corporation business management and control as well as the operation and management of subsidiaries. The Plan has drawn a whole picture for Ansteel Group Corporation's information system architecture, information application projects, infrastructure and software and other aspects, specified the information application objective and tasks, intensified the top-layer design management, formulated the standard of information application system and standardized the informatization management and system construction to elevate the information application level.

Informatization Construction

To ensure the effective implementation of the strategic development plan of informatization, Ansteel Group Corporation has worked out the implementation strategy of the project which advocates the clear lines of responsibilities, overall planning, core control and collaborative promotion under the business demand-oriented driving force. By consolidating the information application resources, Ansteel Group Corporation has coordinated management project building and ensured the effective implementation of information application projects to guarantee the effective running and safety of system.

Technicians of Ansteel Group Corporation are investigating the operation of ERP network.

Anshan Iron and Steel Group Corporation has waged projects including the human resource management system, the legal affairs management system, the e-commerce system, the capital settlement system, the decision-supporting system and the ERP phase II of Ansteel Mining Corporation. Pangang Group Company Ltd. has successfully developed the online management information system regarding information categories and coding to address issues of master data management of cross-discipline, cross-business units, cross-network, cross-territory and cross-multiple heterogeneous system and implemented projects including purchasing and marketing system, MES system of Pangang Group Vanadium and Titanium & Resources Co., Ltd. and engineering project system of Pangang Group Engineering Technology Co., Ltd. The cloud computing technology developed by Ansteel Mining Corporation provides technology support for in-depth convergence of information application and industrialization and promoting the transformation of digital mine to intelligent mine. Such technology was applied for the first time across the corporation at home and abroad and has passed the technology appraisal in Liaoning Province.

CHAPTER 04

Safe Production

Management Guidelines

Management System

Management Measures

Construction of the Emergency Management System

Occupational Health Management

Management Guidelines

By firmly ingraining into our work the concept of People-Oriented and Safe Development and strictly adhering to the safe production guideline of Safety First, Emphasis on Prevention and Comprehensive Control, Ansteel Group Corporation has carried out relevant laws and regulations, implemented the production safety primary responsibility and deployed the refined management covering all processes and involving entire staff in an all-round way to consolidate the basic work of production safety and guarantee the safe development of the enterprise when the establishment of long-term mechanism in compliance with the development of enterprise production and operation stands the core and the focus is on standard compliance and rise in rank of standardization of corporate production safety.

Year 2012 Production Safety Work Meeting of Ansteel Group Corporation.

Management System

In order to follow the requirement stipulated in the major responsibility principle of safe production in enterprises, Ansteel Group Corporation has formulated various management regulations including on-site safe production ban, nine principles of safe and healthy environment and accountability of leaders, concluded the responsibility form and commitment letter of safe production and promoted the implementation of regional safe production responsibility and a pair of responsibilities (i.e. apart from the responsibilities to the business post, the personnel shall be directly responsible for the safe production in his/her post). The emphasis and index of safe production have been incorporated in the strategic performance assessment while the accountability of leaders has been implemented to promote the implementation of safe production responsibility system in place. By taking the opportunity of management improvement campaign, Ansteel Group Corporation has benchmarked with the model enterprise to set up the safe production system in compliance with international standard.

In 2012, totally 112 accidents happened in Ansteel Group Corporation. Among all these accidents, there is one major fatal one, and other 111 are ordinary accidents. The rate of one thousand wounded people was 0.6‰.

Management Measures

Source control was conducted over the safe production

By following relevant laws and regulations, Ansteel Group Corporation has started the pre-assessment of project safety and professional health, review of safety articles, inspection and appraisal in four stages, namely approval of construction project planning, preliminary design, construction as well as completion for inspection and acceptance, to ensure the simultaneous design, construction, production and application of project safety facilities and main construction and to fulfill the control of production safety source as well as the safety in substance of on-site operation conditions.

Activities concerning the standard compliance and rise in rank of standardization of corporate production safety

In order to promote the transformation of production safety standardization from an enterprise standard to a national standard, Ansteel Group Corporation has conducted review of its field, operation and management standardization and improved the compliance of standardized elements and standard by virtue of perfection and rectification. In 2012, Ansteel Group Corporation had 15 entities which passed the review of standardized Class I enterprises in compliance with national standard of production safety, 19 entities which passed the review of standardized Class II enterprises in compliance with national standard of production safety and 15 entities which passed the review of standardized Class III enterprises in compliance with national standard of production safety. On top of the aforesaid, there have been 81 entities meeting the Class I enterprise standards of standardized internal safety of the enterprises and 42 entities meeting the Class II enterprise standards, which accounted for 74.5% of total grass-root entities.

Establishment of Control and Management System on Trouble-Shooting of Hidden Dangers

Ansteel Group Corporation has established the control and management system on trouble-shooting of risks and hidden dangers, amended the management approach on trouble-shooting and control of hidden dangers, standardized and specified the detailed rules such as the management responsibilities, process and methodologies, measures formulation as well as rewards and penalties regarding trouble-shooting and control of hidden dangers. In this way, a dynamic management of hidden danger trouble-shooting and control has been fulfilled. On the other hand, Ansteel Group Corporation has reinforced the supervision of perilous operations in the gas-filled spaces as well as limited spaces. In the wake of trouble-shooting, there have been 2,580 limited spaces confirmed, and over RMB 2 million has been invested to purchase the labor protection items including CO gas detectors and emergency escape mask. Hence a sound and safe operation environment has been created for the staff.

Regarding the key spots of safety management such as mines and sites of building operation, hazardous chemicals, transport and contractors, the special action of Cracking down Illegal Activities has been launched. By means of trouble-shooting, a number of illegal, non-compliant and substandard actions and leaks in management, the rectification and improvement has been conducted within specified period. Moreover, altogether 532 special inspections of various types have been organized to inspect over 2,840 key positions and posts as well as 3,749 equipment pieces of different kinds. There have been 13,560 hidden dangers and leaks in management rectified.

Enhanced Management of Interested Parties

The differentiated management of the entry and exit of interested parties has been conducted to boost the improvement of these parties' safety management and production conditions. The efforts included the review and appraisal of employee leasing companies in a uniform method, the review on the stakeholders' safety qualification and capability and production safety conditions and the implementation of verification system across special departments and safety regulation department. Moreover, the evaluation of stakeholders' qualification has been carried out so that the personnel of stakeholders shall be subject to training and examination when they need to work on site of Ansteel Group Corporation. Only those who have been qualified may enter the field and participate in the operation.

Creation of a Corporate Atmosphere of Safety Culture

The culture of production safety has been incorporated in the overall plan of enterprise culture construction so as to improve the culture quality of staff in terms of safety and energy-saving and emission reduction in an all round way. On the other hand, the training for qualifications of enterprise main officials and safety management personnel has been organized to attain a 100% appointment with qualifications. By waging the campaign of the Production Safety Month, over 60,000 employees seized the opportunity to take part in the knowledge quizzes on production safety held at the provincial or municipal level, and over 90,000 staff have been organized to participate in the nation's Shenhua Cup safety knowledge quizzes. In this way, the establishment and management of the model safety surveillance post occupied by youth have been enhanced to improve the safety level of youth in work.

Ansteel Group Corporation held the solicitation and appraisal of comic works and epigrams about safety under the theme of Epigrams about Safety Deep in My Heart.

In 2012, Ansteel Group Corporation organized more than 130,000 employees to participate in the National Universal Education and Quiz on Staff Professional Safety and Health Knowledge and was honored Outstanding Enterprise in National Staff Professional Safety and Health Knowledge Contest by contest organizing committee of National Ankang Cup. Furthermore, Ansteel Group Corporation organized the prize activity of “Experiences in Team Safety Management”, mustered 102 articles, 210 photos, 10 short sketches and 121 comic strips. Among all the works, there were 14 awarded by Labor Protection Work Association of All China Iron and Steel Enterprises Labor Union. The transport terminus of Ansteel Group Corporation Railway Transportation Company was named National Safety Culture Construction Model Enterprise.

Staff of Ansteel Group Corporation produced and acted in sitcoms to make a breakthrough in the new mode of safety culture.

Pangang Group Company Ltd. organized the staff to hold DV Contest themed Anti-violation of Regulation and Trouble-shooting Hidden Dangers to Promote Safety.

Labor Protection

By keeping improving the labor protection organizations at various levels, Ansteel Group Corporation has organized the representatives of staff and labor protection supervising inspectors on a regular basis to conduct surveillance and inspection of labor protection in their units. The training of labor protection supervising inspector has been held for 100 times with the enrollment of over 5,000 team leaders. The mode that the labor union takes part in occupational disease prevention has been deployed to promote the improvement of occupational disease prevention. comprehensive management system advocating “Accountability of Employer, Industry Standardized Management, Government Law-enforcing Monitoring and Supervision by Staff and Public”. Last but not the least, Ansteel Group Corporation has effectively promoted the production safety by distributing the cooling protection items to workers at the production line in the activity of “sending refreshing coolness to workers" during the scorching summer season.

Construction of the Emergency Management System

The emergency management plan has been amended and improved while the enterprise emergency management system has been perfected. In 2012, by combining the production process, changes in the equipment and facilities and practical exercises, Ansteel Group Corporation has reviewed 261 plans, amended and improved 27 emergency response plans of various types, invested RMB 44.11 million for updating and adding emergency response and rescue equipment and devices. On the other hand, totally 371 emergency response training classes have been held with 17,795 emergency response members trained. The drills in connection with comprehensive plan, special plan and on-site disposal plan, emergency escape and other aspects of emergency response recorded 3,698 with 75,960 person-times participating in the drill. As a pilot entity compiling the national on-site emergency disposal plan, the Steel-making General Plant of Anshan Iron and Steel Group Corporation has completed on-site emergency response plans for 52 sites in 6 systems and passed the review and appraisal organized by National Workplace Emergency Management Center.

Accident emergency drills were initiated by Ansteel Group Corporation.

Case: Proper Disposal of the February 20 Accident

On February 20, 2012, a grave accident against production safety occurred in a steel workshop owned by Angang Heavy Machinery Co., Ltd. (a restructured company). Ansteel Group Corporation immediately initiated its accident emergency response plan, carried out rescue and corresponding disposal in the first place. The accident was reported to the government administration divisions at various levels in a timely manner. Under the leadership and support of government divisions and authorities at various levels, the accident was handled in an effective and appropriate manner.

Ansteel Group Corporation has drawn lessons from the accident and guided the company where the accident had happened to conduct the whole process identification of hazards toward the production flow, reviewed and amended 79 operation manuals concerning cleaning of sand mixer, water content testing of sand mould, thickness of casting bottom sand, contract review, formulation of process plan and operation guidance. On the other hand, the trouble-shooting of hidden dangers has been carried out across the whole company to address the accident threats and deploy advanced prevention from accidents or hazards. The efforts were also put into the total factor review of production safety as well as the rectification of hazard identification in production process and operation approach. The staff was organized to start great discussion of accident and training of safety. A date of warning was set up for long-term emphasizing on production safety and keeping the lesson written in blood in mind to be alarmed all the time.

Occupational Health Management

A complete and standardized management system archiving occupational hazardous factors, occupational hazard prevention and personnel in contact with occupational hazard has been established, and the regular measure of occupational hazard and appraisal of such hazard have been implemented.

In 2012, Ansteel Group Corporation completed pre-appraisal, control appraisal and status quo appraisal of occupational health for 33 projects. The overall qualification rate for detecting the occupational hazard factors such as the dust at site, high temperature, noise and toxic substance reached 94.34%, up 0.5 over 2011. Regarding the five occupational disease hazardous factors, namely dust, toxicant, high temperature, noise and external exposure, the staff occupational health check has covered 74,216 person-times across the year. Through the comprehensive evaluation and analysis of staff occupational health check, the staff occupational health e-archive has been established to trace the real-time occupational health status of the staff. The management of work sites with occupational hazards has been standardized, and the warning logo and occupational hazard warning sign have been set up to serve as the urge and warning that operators should apply correct protections against occupational hazard.

The *Occupational Health Management Technical Specifications in Iron Ore Mining and Mineral Processing Industry*, a national industry standard of production safety compiled by Ansteel Group Corporation, has passed the check conducted by the national safety production standardization technical committee. Such specification is quite instructive and practical for the effective control of occupational hazard and promotion of operation condition improvement. In recent years, Ansteel Group Corporation has been responsible for compiling three national industry standards of production safety.

CHAPTER 05 Environmental Performance

Development Plan

Management System

Target for Work

Management Measures

Development Plan

Ansteel Group Corporation is committed to building a resource-efficient and environment-friendly iron and steel enterprise and a model iron and steel-making base of Green Manufacturing and Operation by implementing the social responsibility and promoting the industry structure adjustment and transformation of development pattern through energy-saving and emission reduction. Meanwhile, Ansteel Group Corporation will actively develop circular economy and make all efforts to fulfill the transformation from conventional manufacturing to low carbon and green production by placing emphasis on both resources development and comprehensive utilization of resources.

Management System

The organization management system, statistics and supervising system and evaluation system of energy saving and emission reduction will be improved. A supervision and management regulations of energy saving and emission reduction will be made out so as to supervise the operation of energy saving, pollution source and environmental protection facilities as well as sewage discharge at drain outlet in a dynamic method and control the up-to-standard discharge at various pollution sources. The objective of energy saving and emission reduction and task breakdown at all levels will be carried out in the strategic evaluation at various units and various levels. The focus will be on the implementation of accountability system to fulfill the energy saving and emission reduction objectives as well as the enhancement of process supervision and project establishment for transformation so as to effectively guarantee various tasks of energy saving and emission reduction to be in place.

Target for Work

The targets are strengthening the technology and management innovation, realizing the leading technology, advanced management and highly efficient utilization of resources and energy in terms of energy saving, conservation and implementation of circular economy in iron and steel enterprises with a view to achieving sustainable development. The efforts will also be made to be equal to or better than the energy saving and emission reduction index and objectives issued by the state in 2012 in an all round way as well as the index of tasks issued by SASAC in third tenure regarding energy saving and emission reduction. The energy saving and environmental protection process and technology as well as index will reach the advanced level in the country while the system of energy saving and environmental protection management, testing and evaluation is robust and effective.

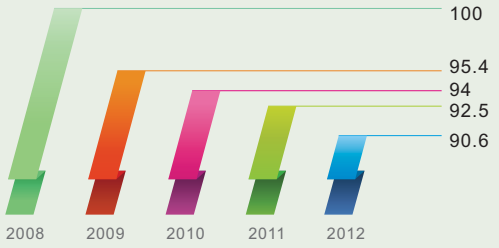
Management Measures

In 2012, Ansteel Group Corporation invested RMB 1.13 billion for the energy saving and emission reduction as well as environment protection projects concerning waste heat recovery for power generation, frequency conversion for power saving, utilization of gas, wind power generation, green lighting, desulfurization of sintering flue gas, disposal of coking waste water and disposal of smoke and dust. Across the year, totally 15,000 tons of dust emission and around 20,000 tons of sulfur dioxide emission have been cut. Angang Steel Co., Ltd. was named Clean Production and Environment-friendly Enterprise in China Iron and Steel-making Industry by China Iron and Steel Association. Bayuquan Iron & Steel Subsidiary Company of Anshan Iron and Steel Group Corporation was honored Model Entity of China for Circular Economy by National Development and Reform Commission.

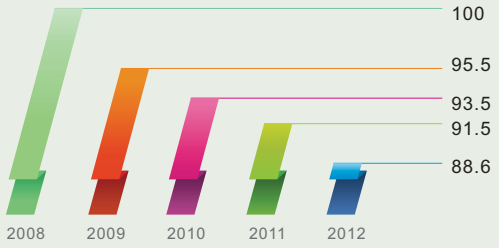
Energy Consumption

Ansteel Group Corporation kept the continuous innovation of the energy management pattern in 2012 to save 301,400 tons of standard coal and fulfill a 1.88% decrease in comprehensive energy consumption per ton of steel on a YoY basis.The energy saving since the "12th Five-year Plan" period has accumulated to 1.0336 million tons of standard coal. The stage goal of our country's energy saving and low carbon action in such period has been achieved.

Anshan Iron and Steel Group Corporation Rangeability of Comprehensive Energy Consumption of Per Ton Steel (%)



Pangang Group Company Ltd. Rangeability of Comprehensive Energy Consumption of Per Ton Steel (%)



Energy Saving Measures

Advancing the Energy Efficiency Management

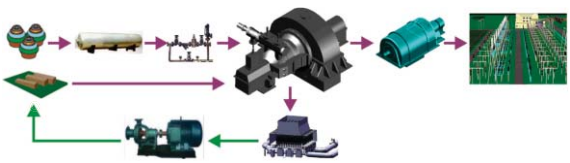
The focus was on the energy saving technology improvement when standard compliance review of energy efficiency was carried out. The energy saving awareness of enterprise and staff has been strengthened effectively by implementing the energy efficiency benchmarking and incentive and evaluation management mechanism. In 2012, the number of qualified energy efficiency units of Ansteel Group Corporation reached 145 with the rate of qualification reaching 96 %. The Angang Steel Co., Ltd. headquarters in Anshan and Bayuquan Iron and Steel Base have passed the external examination of energy management system and obtained the certificates of energy management system. Pangang Group Company Ltd. has passed the examination of special energy supervision in Sichuan Province by conducting the energy auditing and compiling the energy audit report.

Innovative Energy-Saving Mode

The energy saving mode has been innovated to promote the establishment and implementation of energy performance contracting projects. In 2012, Ansteel Group Corporation has implemented 26 energy performance contracting projects in total and saved the energy of 127,000 tons of standard coals. Energy performance contracting projects covered the dry dust removal technology in blast furnace gas, sintering waste heat recovery technology, recovery and utilization of waste heat from steel rolling heating furnace, fan frequency conversion transformation, green lighting transformation, low pressure pump transformation of electric furnace, etc..

Enhancement of Exchanges in Energy Saving Technology

Exchange in energy saving technology has been enhanced. Ansteel Group Corporation has carried out the exchange of know-how in energy saving management, new energy saving technology and new processes with Baosteel, Shasteel, Fuji Electric Holdings Co., Ltd. and Chinese Academy of Sciences as well as other enterprises and scientific research institute, learned from each other the latest development in the industry and new technology promotion and application, summarized and promoted the experience and practice regarding the innovation and application of energy saving and emission reduction technology within Ansteel Group Corporation.



Sketch Map of the Surplus Steam Power Generation Project of Bayuquan Iron & Steel Branch, Angang Steel Co., Ltd.

Construction of Major Energy Saving and Emission Reduction Projects

Ansteel Group Corporation has actively promoted the implementation of energy saving and emission reduction projects, effectively enhanced the utilization of secondary energy and thus improved the environment quality within the plant area. In 2012, the phase IV coke dry quenching (CDQ) power generation unit in the chemistry plant of Angang Steel Co., Ltd. started to generate power after combination to the grid. The steam from CDQ boiler of Chaoyang Anling Iron & Steel Co., Ltd. has been combined to the stream pipe system to generate power. Angang Steel Co., Ltd. newly built 150,000 m^3

converter gas holders to recover and utilize the gas from converters. The implementation of a series of energy saving and emission reduction projects, such as waste gas and heat recovery from annealing furnace, waste heat and steam recovery system transformation of steel-making converters and transformation of new No. 3 sintering machine waste heat recovery device in Cold Mill Plant of Pangang Xichang Steel and Vanadium together with transformation of ammonia distillation system and C410 strap dust removal system in the coal-to-chemical plant, may save 66,000 tons of standard coal and reduce dust emission of 15,000 tons per year.

Recycling and Utilization of Surplus Energy

Special research has been done to major energy consumption process and relevant index and continuous efforts have been made to improve the recycling of surplus energy and waste heat together with conversion efficiency of secondary energy so as to promote the full application of surplus energy. While the recovery and utilization of surplus energy and waste heat, the active promotion of power generation with blast furnace top gas-pressure recycling turbine, dry quenching of coke oven and surplus pressure and application of unit including gas-steam combined power plant with surplus gas as fuel are enhanced to maintain stable operation, the focus will also be put on the strengthening of the surplus energy and waste heat.

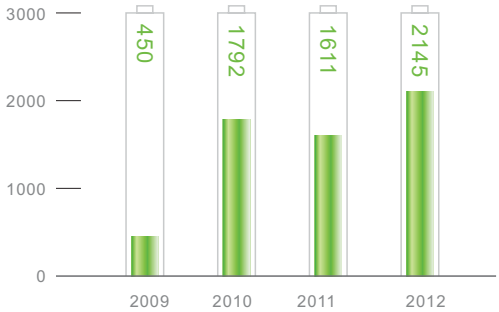
In 2012, Anshan Iron and Steel Group Corporation strengthened the management of production scheduling, optimized the system operation and carried out the energy saving technology transformation including the additional combustion of coke oven gas in coal-fired boilers and gas boiler to reduce the gas emission rate. The emission rate of coke oven gas in Anshan Iron and Steel Base is 0.11% while the same gas in Bayuquan Iron & Steel Subsidiary of Anshan Iron and Steel Group Corporation fulfilled zero emission.

By sticking to the core of green metallurgy, Pangang Group Company Ltd. has conducted the technology transformation of recovery system and cooling system of converter gas. The utilization rate of coke oven gas reached 98.4% and such rate of blast furnace gas was 95%. The recovery of gas in the No.2 converter in Pangang Group Xichang Steel and Vanadium Steel-Melting Plant adopted the up-to-date dry dust removal and cleaning technology for converter gas. A large amount of gas produced during the smelting in converter was recovered for the application in power generation unit, iron and steel –making so as to further improve the energy utilization rate, reduce the production cost and fulfill the steel-making with minus consumption of energy.

Utilization of Clean Energy

By advocating the green production mode and promoting the clean production and circular economy, the harmonious development of both enterprise and environment has achieved after the elimination of outdated mode, construction of new area, development along coast and energy saving and emission reduction. Bayuquan Iron & Steel Subsidiary of Anshan Iron and Steel Group Corporation, taking advantage of coastal geographical location, started with wind power generation, utilization of solar power and sea water desalination technology to practice the organic combination of green iron and steel with low carbon economy. As at the end of Year 2012, there have been 11 wind power generation units completed at Bayuquan Iron & Steel Subsidiary of Anshan Iron and Steel Group Corporation with gross installed capacity reaching 15,750 kW and annual power generation of 21.41 million kW•h. The photovoltaic power generation project with capacity of 100 kW has been completed with annual power generation of 103,000 Kw•h.

Wind power generation output (10,000 kW•h)



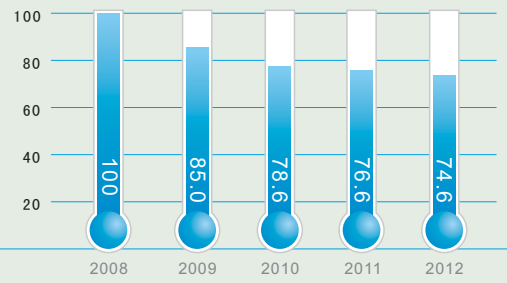
Bayuquan Iron & Steel Subsidiary Anshan Iron and Steel Group Corporation has completed photovoltaic power generation project.

Wind power generation project at Bayuquan Iron & Steel Subsidiary of Anshan Iron and Steel Group Corporation.

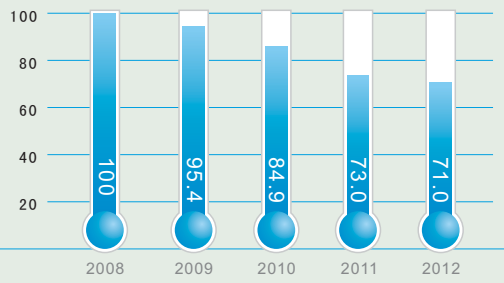
Water Resource Management

The water consumption facilities and sewage water treatment facilities have undergone system transformation according to the planning. The water saving measures have covered the whole process of production from mining to steel rollout, and the water recycling system management of various production units has been improved to bring up the efficiency of water resource recycling and utilization. In 2012, Ansteel Group Corporation saw a 3.45% decline in fresh water consumption per ton of steel, a 16.4 % decline in the emission of COD compared with the same period of last year and a 1.5% increase in qualification ratio of pollution factors.

Fresh water consumption range per ton of steel of Anshan Iron and Steel Group Corporation (%)



Fresh water consumption range per ton of steel of PanGang Group Corporation (%)



Advancing the Progress of the Environmental Protection and Emission Reduction Technology

The Key Technology and Application of Coking Waste Water Enhanced Disposal jointly innovated and applied by Ansteel Group Corporation and Institute of Process Engineering of Chinese Academy of Sciences has passed the innovation appraisal organized by China Iron and Steel Association. The expert committee agreed unanimously that the key equipment and complete technology have fulfilled the engineering application of coking waste water disposal and reached the internationally advanced level in general. Among all technologies, the highly efficient decyanation flocculation technology and multiphase ozone catalytic oxidation technology had sound social benefits, which not only achieved the internationally leading levels to provide technical support for the up-to-standard discharge and fulfillment of recycling of coking waste water, but also promoted the progress of the environmental protection and emission reduction technology in iron making and coking industry of our country, which was of worthy social benefit.

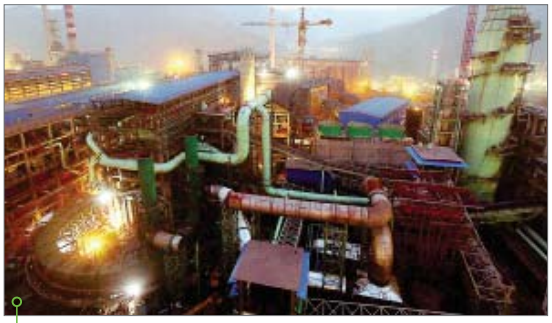
Protection of the Water Source of the Yangtze River

As the biggest industrial enterprise at the upstream of the Yangtze River, Pangang Group Company Ltd. has controlled the pollution to the environment from the source and invested a large sum of money in the pollution control. In 2012, the CDQ system, recycled water system and other key water saving projects of Pangang Vanadium Coal-to-Chemical Plant have been put into operation in succession. The fresh water consumption per ton coke has reached Grade I standard in the industry. Meanwhile, the water system for refined benzene working procedure and recovery biochemical system has been transformed to use the cooling water of refined benzene as the dilution water of recovery biochemical system. In this way, the repeated utilization ratio of water for industrial use has reached 95.95% with 1.7 million tons of water saved on an annual basis. The simultaneous development of economic benefit and environment benefit has been achieved.

Implementation of the Blue Sky Project

The existing air pollution control and management facilities have been incorporated in the production equipment management system in the metallurgy plant area of Ansteel Group Corporation to fulfill the simultaneous maintenance, overhaul and operation of environmental protection and production facilities. Independent innovation has enabled the environmental protection while desulfurizing projects for sintering machines and desulfurization project of power station boilers have been fully implemented. In 2012, the fuel gas desulfurization projects for II series sintering machines in Bayuquan Iron & Steel Subsidiary of Anshan Iron and Steel Group Corporation, for sintering machine in No.2 Sintering Plant of the Steel-making General Plant of Anshan Iron and Steel Group Corporation and the new No.3 sintering machine in Pangang Vanadium have been completed. The supporting desulfurization facilities have been built for all boilers in the self-owned power generation plant, and hence the efficiency of desulfurization increased from 50% to over 90%. The full desulfurization of coal-fired boilers has been realized. In 2012, the emission of sulfur dioxide in Ansteel Group Corporation reduced by 5.5% on a year-on-year basis.

The New Bayuquan Iron & Steel Base of Ansteel.



Construction Site of Fuel Gas Desulfurization Facility for New No.3 Sintering Machine in Pangang Vanadium.

Solid Waste Management

Ansteel Group Corporation looks on the development of circular economy as the important method and approach for the enterprise to fulfill a sustainable development, has actively conducted the R&D of cutting-edge technology for metallurgical slag and enhanced the development and utilization of solid waste. All iron-bearing material produced in the iron and steel-making process has been recycled to form a variety of products, such as steel slag, refined steel pieces, refined iron powder, powder from magnetic separation, slag powder and baking-free bricks. In this way, the development of circular economy has been promoted.

As of the end of 2012, Anshan Iron and Steel Group Corporation had built two processing lines for magnetic separation of steel slag, which would process the steel slag through magnetic separation. With the lines deployed, the extraction efficiency of metallic iron of converter steel slag was over 98%. Meanwhile, another two deep processing lines for steel slag products have been built so as to conduct intensive processing of grain steel over 50% of full iron grade so that the steel content of grain steel would reach 90% for direct supply to converter. A steel slag powder line has been invested and built so that the steel tailings could be ground to slag powder for the cement and concrete production. In this way, the recycling of steel tailing has been addressed. There have been five lines to produce micro powder of mineral waste residue and slag cement to carry out deep processing of blast furnace grain slag. The first iron-bearing reclaimed materials treatment system in the country has been built to conduct 100% sintering for repeated use after optimized proportioning of iron bearing miscellaneous material such as converter mud, steel-making dust, gas mud, gas dust, blast-furnace ash, iron slurry, dust in raw material field, and iron oxide. The pulverized fuel ash recycling system has been completed to recycle the pulverized fuel ash from power generation. By adopting the advanced process and technology including the stew process of slag from converter and hot splashing slag from blast furnace slag, Pangang Group Xichang Steel and Vanadium Co., Ltd. has built the lines to dispose slag from converters and blast furnaces in synchronization with main process and thus fulfilled the comprehensive utilization of all slag from converters and blast furnaces.

The research on new slag wool has been carried out. The slag wool developed on the basis of the industrial waste – slag is characteristic of heat preservation and energy saving, safety and fire resistance, and may be applied for the filling, heat insulation, sound absorption and insulation for buildings. It also stands for the development trend of new purpose of metallurgical slag in the iron and steel industry and boasts significant economic and social benefits.

The research on key technology and equipment of vanadium oxide clean and highly efficient production has been conducted with the proposal of core principle regarding the vanadium oxide clean production. Such approach has fulfilled the clean and highly efficient production of vanadium oxide, increased the recovery rate and resource utilization rate of vanadium and formed the world leading complete technology of vanadium oxide clean production. The research was granted the first prize of scientific and technological progress award in SichuanProvince.

For years, Ansteel Group Corporation has been implementing the development strategy to build a resource saving and environment-friendly enterprise, made profound contributions to the promotion of circular economy in iron and steel industry of China and played leading and demonstrating role in the metallurgical slag treatment sector of our country. In June of 2012, China Association of Metalscrap Utilization recommended and selected Slag Development Company of Anshan Steel Group Corporation as the representative and major candidate for voting at the 1st Chinese Renewable Resources Industry Development Summit Forum. After the online public voting as well as voting and review by industrial expert panel, SU Xingwen, Manager of Anshan Steel Group Corporation Slag Development Company was honored the title of the Person of the Year in Renewable Resources of China in 2012.

Ecological Restoration

Adhering to the general approach of Building a Plant Area with Beautiful Ecology and Environmental Friendliness, Ansteel Group Corporation has proposed the greening principle of Planning and Design before Planting Suitable Trees on Appropriate Lands. By connecting the spot, line and whole area, a greening landscape dominated by trees and supported by multi-layered trees, bushes and vines as well as flowers and grass in high density has been formed in the axle of main road in the plant area. A sound ecological landscape effect has thus been achieved.

With an aim of 'Building Green and Ecological Mines and World Leading Iron Ore Enterprises', Ansteel Mining seized the opportunity of Green Mountain Project carried out in Liaoning Province, actively performed the social responsibility of enterprise and invested RMB 40 million for ecological reclamation of mines in 2012. After a whole year's work, a reclamation area of 372,000 m^2 with around 1 million trees planted came into being. Among all these trees, there were 400,000 acacias and 600,000 amorpha fruticosas. The independently developed greening and reclamation technology has been adopted and the rate of survival was close to 100%. At present, the coverage of greening in the mines has reached 43.6%. The reclamation project of waste rock field in Donganshan Iron Ore was honored Excellent Project of Green Mountain Work.

Pangang Group Company Ltd. also put emphasis on the construction of ecological environment and made all efforts to build a sound production and living environment for staff and their families. The plant greening renovation has been conducted in the plant area including Pangang Power Plant, Coal Chemical Industry Plant and Steel-making Plant as well as the surroundings. The greening project backing the construction project has started, and the Three Simultaneities of greening project and main works have been fulfilled to the projects such as Xichang vanadium and titanium resources comprehensive utilization, phase II engineering of Baima Iron Ore of Pangang Mining Corporation. The greening coverage and beautification of construction projects have reached 100%. On the other hand, the slope vegetation reclamation continued. Ecological treatment has been done to the abandoned slag disposal pit, refuse dump and surrounding slopes as well as other areas with the reclamation area reaching 110,000 m^2 and over 30,000 plants being cultivated. The greening rate and coverage of greening in the plant area have achieved 99.61% and 34.88% respectively.

Ansteel Group Corporation has actively implemented the development goal in connection with the deepening of energy saving and emission reduction, building of green iron and steel industry and fulfillment of social responsibility. Targeting at Creating a Greening and Reclamation Brand and Building a Green Ecological Park, the project of mine greening and reclamation has achieved sound progress. Over 540,000 trees and 7,000 fruit trees as well as an area larger than 43,000 m^2 of forage grass have been planted in the waste rock field of Dagushan Iron Ore. An ecological park for sightseeing in which trees are laden with fruits and birds are singing amid fragrant flowers has now been conjured up out of a previously abandoned waste rock field of an area of over 700,000 m^2.

The environment in plant areas of Anshan Iron and Steel Group Corporation continued to improve. In June 2010, Honglongjiang Longmay Mining Holding Group Co., Ltd. presented 10 breeding deer as a gift to Anshan Iron and Steel Group Corporation. The deer was ranged in the plant area of Bayuquan Iron and Steel Base. The herd keeps growing. Now there are 21 deer in the plant area. The gift witnessed the harmonious development of enterprise and society as well as economy and environment.

1.Plant Environment of Anshan Iron and Steel Base.

2.Plant Environment of Panzhihua Iron and Steel Base.

3.4.Side Slope Greening Project in the Plant Area of Pangang Group Xichang Steel and Vanadium Co Ltd.

CHAPTER 06
Employee Protection

Basic Facts of Employees
Rights and Interests of Employees
Caring for Employees
Employee Development

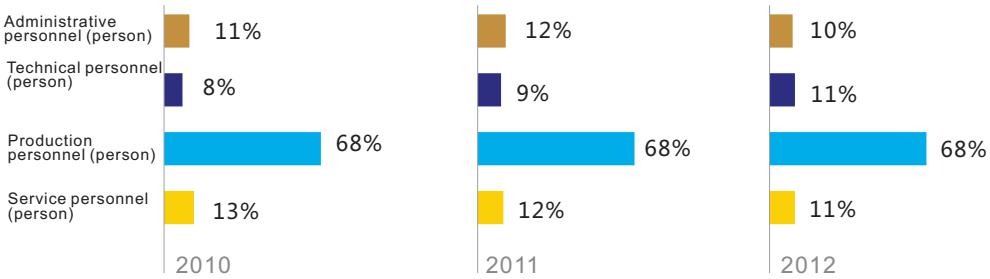
Basic Facts of Employees

By the end of 2012, Ansteel Group Corporation has 216,201 employees, including 192,614 on the job. Compared with that of the end of 2011, the number of employees has gone down by 8,953, in a proportion of about 3.98%.

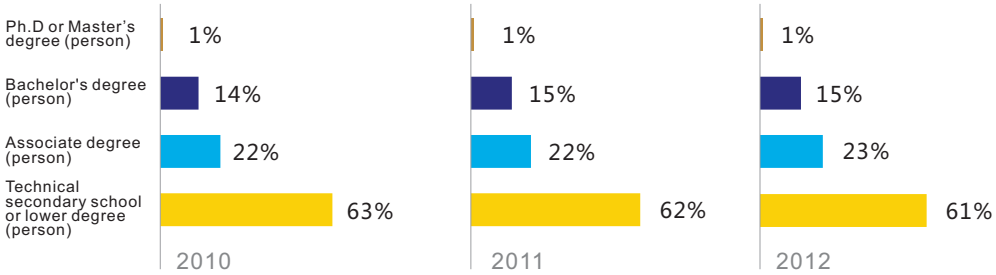
Basic Facts of Employees of Ansteel Group Corporation

	2010	2011	2012
Total number of employees	233971	225154	216201
Total number of on-the-job employees	204992	199337	192614
Total number of female employees	46415	43850	40955
Percentage of female employees	22.6%	22%	21.3%
Total number of new employees	2582	1591	1834
Reduced number of employees	11049	10408	11824

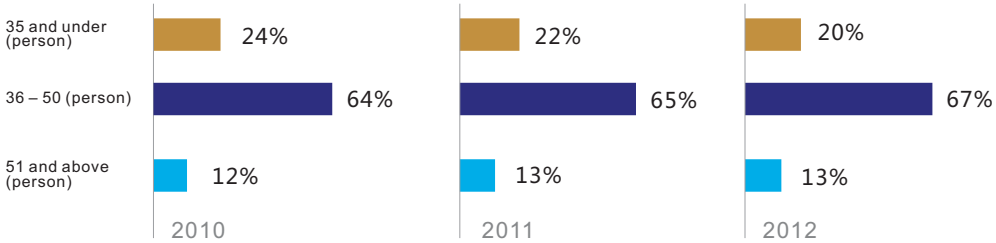
The structure of employee positions



The structure of educational background of employees



The age structure of employees



Rights and Interests of Employees

Normalization of Labor and Employment Management

Laws and regulations are conscientiously implemented, such as *Labor Law* and *Labor Contract Law*, rights and interests of employees are earnestly protected, and Labor contracts with employees are signed and performed in compliance with laws. The labor contract signing rate of employees in Ansteel Group Corporation is 100%. The construction of labor rules and regulations is strengthened, irregular labor relations are regulated, and labor contract management is reinforced. In 2012, Ansteel Group Corporation cancelled or terminated labor contracts with 1,383 employees in compliance with laws. Through establishing and improving labor dispute mediation organization, carrying out activities of establishing enterprise with harmonious labor relations, and building harmonious labor relations actively, the target of zero labor disputes has been realized, guaranteeing the stability of the employee team, and improving the construction of harmonious enterprise.

In 2012, at the National Employment and Entrepreneurship Awards Conference, Angang Steel Co., Ltd. was conferred the honorary title of "National Advanced Enterprise for Employment". Angang Steel Co., Ltd. earnestly performs social responsibilities, actively creates jobs to absorb college graduates, fully plays the role of "Training Base for Youth Employment and Entrepreneurship", adheres to the concept of using benefits to retain people, emotion to retain people and career to retain people, constantly improves the career development channel of the three series management, technical and production, helps the newly recruited college graduates to design career development plan, implements the activity of instructors teaching the beginners, provides opportunities of learning and training, education and promotion, advanced studies and investigation and study, and promotes the youth to grow and develop quickly, highlighting the good image of central enterprise performing the social responsibilities.

Collective Contracts

Ansteel Group Corporation and its subordinate entities put great emphasis on the faithful fulfillment of the collective contracts, and the employee representatives conduct a regular inspection to ensure that the basic terms covered by the collective contracts such as the labor employment, labor remuneration, working hours and rest and vacation, occupational safety and health, special protection for female workers,

employee training and education, insurance and benefits have been implemented, and brings to full play the positive effects of contracts in guaranteeing the legal rights and interests of employees, protecting the rights and interests of Ansteel, and constructing a harmonious labor relationship. In 2012, the coverage rates of collective contracts and special collective contracts for protecting the rights and interests of female employees in Ansteel Group Corporation reached 100%.

Case: Construction of a Communication Platform to Build a Harmonious Enterprise

Pangang Titanium Industry Co., Ltd. put forward the work approach of “two three four five six”, namely establishment of two information channels, innovation of three growth and development platforms, deepening the transparency of four-level factory affairs, construction of five charity service teams, and fulfillment of six deeds. Through conducting visit activities and using internet information to do online Q&A, the company communicates with the employees, timely understands the thoughts of employees, and asks for the suggestions of employees. Employee reading communication platform, position achievement platform and position growth platform are established, creating the good atmosphere of learning new knowledge, applying new technology and promoting new experience. The four levels factory affairs open system of company, factory, workshop and team are improved, and the contents and channels of democratic management are expanded. “Love mutual assistance team”, “love legal advice team” and “love psychological counseling team” are established to solve problems for the employees and their families. The six practical things “sending love on the employees’ birthdays”, “sending love for examination success”, “sending love for study assisting in the autumn”, and visiting the employees in difficulty, employees in hospital, and advanced characters are carried out.

Policies for Employees’ Remuneration and Welfare

Ansteel Group Corporation has always adhered to the principle of distribution on the basis of labor, carried out its institution of equal access to employment opportunities and equal pay for equal work, with no prejudice on the grounds of gender, age, health status, race, and religious belief, etc.. A salary distribution system based on the value achieved by employees for the company has been created; in order to maximize economic benefits, a distribution system has been implemented for managers, whose remunerations hinge on the corporate business achievements and performance; a position-based salary mechanism has been adopted for employees, whose remunerations depend on their position, personal contribution and the company’s economic benefits; in accordance with the technical service marketization, salaries for research personnel are associated with the benefits brought by their research projects. In 2012, Ansteel Group Corporation proceeded on with the reform of the remuneration distribution system, unified and regulated remuneration distribution systems, further adjusted internal allocation relationships in the company, and enhanced the incentive role of the remuneration distribution. By the end of 2012, Anshan Iron and Steel Group Corporation had had 25 pilot units of remuneration distribution system reformation.

In line with the stipulation of national and local policies, Ansteel Group Corporation has established a social security system covering endowment insurance, medical insurance, unemployment insurance, employment injury insurance, and housing allowances, etc., and paid various general expenses on time and in full. The insurance coverage rate has reached 100%. Besides, according to the actual situation, Ansteel Group Corporation has supplemented medical insurance and complementary work-related death insurance, etc.. Some units covered employer's liability insurance.

National regulations on working hours and rest and vacation, etc. are strictly enforced, related regulations and systems complying with the actual situation of the company are formulated, and the standard working system of eight hours per day and 40 hours per week is put in place. Irregular or comprehensive working hour calculation system has been in place for positions of special types in accordance with laws. If working time has to be prolonged due to product dysfunction, accident repair and urgent tasks, etc, employees will be compensated in the form of leave or salaries. Employee paid leave plan has been formulated, the working hour and rest and leave time of employees are reasonable arranged, effectively guaranteeing the rest and leave rights of remployees.

Construction of the Labor Union Organization

Pangang Group Company Ltd. launched a training class for staff representatives and cadres of the Labor Union.

In accordance with the *Labor Union Law of the People’s Republic of China* and the *Labor Union Constitution of China*, Ansteel Group Corporation has set up labor unions from the headquarters to the workshops and teams at grass-roots level. Labor unions at all levels are assigned with 858 full-time and part-time cadres, and both the coverage rate of labor unions and membership rate of employees reached 100%. Labor unions at all levels carry out their work independently in accordance with the *Labor Union Constitution of China*, and organize employees to participate in democratic decision-making, management and monitoring of the company by means of Employees' Congress or in other forms in accordance with laws.

Protection for the Rights and Interests of Female Employees

Special Collective Contracts of Rights and Interests Protection for Female Employees is conscientiously implemented, the legal rights and interests of female employees are effectively protected, the "four phases" labor protection for female employees is carried out, the work of female employees is reasonably arranged, the working environment is improved, and the safety of female employees is guaranteed. Related insurances are conducted for female employees, and health knowledge lectures are carried out. In 2012, 34 female employees of Ansteel Group Corporation who suffered from diseases received insurance claims; 22 lectures on the occupational hazards and sub-health of female and the prevention knowledge of the two cancers were conducted, and 5,300 female employees participated in the lectures; female employees at all levels organized and held 126 lectures on the consulting of the mental and physical health knowledge of female employees.

Special care is accorded to female employees in troubles. They are paid regular visits and receive solicitude and aids from the Corporation. In 2012, the company helped and assisted female needy employees for 1,185 person-times, provided a financial aid of RMB 1.2511 million, and gave RMB 267,300 "educational subsidy in the autumn" to 247 single mothers' children.

Female employees of Ansteel Group Corporation participate in the knowledge contest.

Female employees of Ansteel Group Corporation are carrying out technological exchanges.

Democratic Management

Opinions on 2012 Opening of Factory Business and Democratic Management of All China Federation of Labor unions was meticulously implemented to earnestly protect the right to be informed, the right to express, the right to participate, and the right to supervise of employees; with both the report rate and standardized deliberation rate of important events in Ansteel Group Corporation and its subsidiaries reaching 100%. Tasks of handling proposals of representative staff members were emphasized. At the 11th session of the 10th Workers Congress of Anshan Iron and Steel Group Corporation, employee representatives submitted 21 proposals, of which 4 involved production and operation and development planning, 10 corporate reform and management, and 7 interests of employees like housing allowance with a proportion of 19%, 48%, and 33% respectively. Both the proposal addressing rate and opinion solicitation rate reached 100%.

Caring for Employees

Conducting Activities of Supporting and Helping Needy Employees

The Corporation offered help to employees in line with their demands on a one-to-one or many-to-one basis. A long-term mechanism of supporting and helping needy employees was improved, and the activities of supporting and helping needy employees were carried out in accordance with the different situations of the needy employees such as different needy degrees, different needy reasons and different supporting needs. The many-to-one supporting and helping system was established, namely, "employees in one office and workshop, or Party and League members and cadres in the same working process" as group to help one needy employee. Pangang Group Company Ltd. established the four levels supporting and helping network, i.e. Group Company- subsidiary (branch) plant and mine-workshop (working section), formed the supporting and helping operation mechanism featuring upper and lower linkage, and the multi-level and full coverage of the supporting and helping for needy employees were ensured.

In 2012, a total of more than 5,980 cadres of Ansteel Group Corporation extended their help to 1,485 employees on a one-to-one basis, 1,211 on a many-to-one basis. Over 98% of the employees in destitution or in poverty were assigned one or several designated cadres. The activity of "providing warmth and offering solicitude" was carried out. 25,903 persons participated in the donation activity and RMB 1.2277 million were donated.

Leaders of Ansteel Group Corporation extend regards to employees at the production line.

Conducting Visit Activities of "Sending Warmth to Employees"

The cadres and party members at all levels of Ansteel Group Corporation conduct the activities of visiting the grassroots employees, and entering the communities, wards and households to solve problems for the employees, do practical things and good deeds for the employees, which reflects the humane care of the company. In 2012, Ansteel Group Corporation called at the home of 31,884 employees in poverty or staying at home or with illness, granting financial aid worth RMB 15.55 million; paid a visit to the home of the employees in poverty and retirees for more than 21,900 person-times, granted financial aid worth over RMB 8.70 million; provided RMB 114,000 special funds for the employee warmth project, and assisted 64 needy employee families who have no income, labor ability and medical insurance.

Leadership of Ansteel Group Corporation visits and extends regards to needy employees.

Caring for Physically Challenged Employees

Units at various levels of Ansteel Group Corporation put great emphasis on those physically challenged for whom a management system has been established and campaigns to help and assist them have been waged. The practical difficulties of those employees are learnt about and their problems are disposed of through visits paid to their houses. In 2012, Ansteel Group Corporation paid visit to and extended regards to disabled employees for more than 2,300 person-times, and granted financial aid worth RMB 755,000; contributed RMB 2.79 million for the employment security deposit of the disabled employees.

Guaranteeing the Health of Employees

Guaranteeing the health of employees has become an important benefiting project of the Corporation. Ansteel Group Corporation established a "four-in-one" medical security system for employees, i.e., basic medical insurance, over-limit medical insurance, medical financial aid, and complementary corporate medical insurance. In 2012, 4,318 on-the-job employees, employees resting at home and retirees received medical relief funds with the sum reaching RMB 20.4379 million in total.

In 2012, 100,216 employees in Anshan area participated in the physical health examination. The physical health examination items were added and the physical examination information was sent by SMS. The satisfaction rate of employees for the physical health examination reached more than 98%. Pangang Group Company Ltd. organized and carried out on-site rescue and health knowledge training to improve the self-help and mutual-aid awareness and ability of employees in accidents, and conducted physical health examination for 15,392 employees.

Employees of Ansteel Group Corporation are taking physical examination.

Pangang Group Company Ltd. carries out AIDS prevention knowledge campaign.

Conducting Tobacco Control Activities

As the partner of Anshan City in the "Tobacco-Free City — Gates China Tobacco Control Project", Ansteel Group Corporation actively participated in the project centering on "creating completely tobacco-free working conditions". Through conducting such activities as handing out smoke control promotional materials and smoke control marks, carrying out the tour event of health alert chart, holding employee smoke control knowledge contest and setting up comprehensive smoke-free workplace capability building training class, the corporation proposed a healthy lifestyle and made the employees mastered the smoke control knowledge. In the "China and the USA Smoke-free Workplace Partner Project" training conference in Shanghai, Beijing International Smoke Control Academic conference, as the only enterprise in China, Ansteel Group Corporation introduced the experience in carrying out and building the smoke-free enterprise. In 2012, The Patriotic Health Campaign Committee of Anshan City named 9 units of Ansteel Group Corporation as "smoke-free demonstration units", 11 unit organs as "smoke-free demonstration organs", and 20 canteens (dining halls) as "smoke-free demonstration canteens (dining halls)".

Ansteel Group Corporation initiates a picture tour exhibition on health caution.

Employees in Recreation and Sports

Various forms of recreational and sports activities are vigorously carried out to enrich the recreational and sports lives of employees. In the 23rd Games of Ansteel Group Corporation, the Corporation organized more than 20 recreational and sports activities such as chess games, table tennis league, football league, badminton league, tug-of-war, volleyball league, basketball competition, bocce competition, swimming competition and martial competition. The Corporation also organized more than 30 artists from such associations as culture, calligraphy, fine art, photography, poetry, etc. to the grassroots units to offer art works of books, new year scroll and blessing character to the employees, created more than 400 calligraphy and fine art works for the employees, and gave away more than 3,000 books and magazines of various kinds. Pangang Group Corporation organized and held employee Lantern Festival garden tour, single employee fellowship, female employee painting, photography and handwork exhibition, on-site painting contest and badminton, swimming, table tennis competition and other recreational and sports activities. The Pangang Troupe performed more than 20 performances in the grassroots units and the living area of employees.

Ansteel Group Corporation organized and participated in the 4th National Sports Game of the Metallurgical Industry Employees, Ansteel Group Corporation became the first in team competition and the first in the medal list, and received the Excellent Organization Award and the title of Advanced Unit in National Metallurgical Industry Sports Work. In the 2nd Employee Dance Contest of Sichuan Province, Pangang received the Grand Prize.

Employees of Ansteel Group Corporation carry out recreational and sports activities.

Employee Development

Goal of Talent Development Planning

A goal has been set up to perfect and innovate the system and the mechanism giving priority to talent development, to vigorously train and attract high-level talents, and to lay a foundation for constructing a more competitive and innovative "talent highland" from now to 2015. By 2020, a talent team with medium scale, reasonable structure and excellent quality will have been trained and built, comparative advantages of Ansteel Group Corporation in talent competition will have been formed, and a "talent highland" which is based on Ansteel Group Corporation, boasts a leading role in the industry, and serves as a vanguard of the development of the world iron and steel industry will have been constructed, so as to provide steadfast guarantee of talent for realizing the strategic development goal of Ansteel Group Corporation.

Construction of the Training System

Talent Development Academy has been set up as a training base for high-level business management personnel and a new platform for research, communication and sharing of creative theories and real-world experience in management; the education training resources in the Group Corporation were integrated to set up an education training center to raise the level of education training. Training systems and operation mechanisms have been optimized and training systems were founded with the position quality promotion as the base, political theory, humanistic quality training as the focus, with the combination of corporate culture promotion and management creative, technology innovation promotion, covering management personnel, professional technical personnel and production service personnel was set up.

To contend with the working and learning issues in the education training of the employees at the bases, teaching bases were set up in three main production bases besides Anshan headquarters, i.e. Bayuquan Steel Base, Chaoyang Anling Company and Ansteel Mining Gongchangling Mine. According to the annual training plan, sending teaching to the door or distance learning forms were adopted to provide training service for the employees, and the training coverage was increased.

To build researcher teams with the capability of independent innovation and meeting the development needs of enterprises, Pangang Group Company Ltd. adopted the way of cooperating with research institutions at home and abroad, and universities, set up Pangang postdoctoral workstation, acquired the qualification and plaque for establishing the first academician (expert) workstation in Sichuan province, becoming the first academician (expert) workstation, so as to introduce scientific talents of high level, providing new mechanism and new platform for establishing self-renovation enterprise.

Employee Training

Ansteel Group Corporation keeps improving the management system of employee education & training and innovating in administrative measures on employee training. Guided by the Outline of National Medium and Long-term Talent Development Planning, the human resources development plan of Ansteel Group Corporation was implemented, and implementation plans of annual employee education training were formulated. In 2012, Ansteel Group Corporation opened 1,961 Class-I training sessions, and trained 163,705 person-times. It included 992 training sessions for management and professional positions, and trained 45,050 person-times; 969 training sessions for production operation and service positions, and trained 108,225 person-times. The completion rate of the training plan was 94.5% and the completion rate of the academic credits was 97.2%.

Top-Notch Talent Fostering

Focusing on the fostering of senior-level management talents, Ansteel Group Corporation built a professional senior management talents team. 30 cadres, varying from youths to middle-aged people, were selected to carry out a one-year train and study in University of Science & Technology Beijing; 35 young cadres were selected to carry out train and study in Nanyang Technological University in Singapore; training sessions for the leadership improvement of young management personnel were carried out and 90 employees participated in the training; 53 management personnel were selected to study in Southwestern University of Finance and Economics; seminars were held for senior management personnel in positions of deputy director level and above, and the training reached 2,000 person-times; 35 management and professional technical personnel were organized to study in Dalian University of Foreign Languages.

Training of Professional Technical Talents

Continuing education for and the fostering of professional technical talents have been further stepped up. In cooperation with University of Science and Technology Beijing, Dalian University of Technology, Harbin Institute of Technology, University of Science and Technology Liaoning, and other institutions of higher learning, 217 graduates majored in architecture engineering, controlling engineering, mechanical engineering, etc. were cultivated; 459 professional and technical employees were selected to further their studies in Northeastern University Continuing Education College; 312 outstanding young technology talents were organized to participate in the training of “innovation spirit and innovation ability”; marketing system, financial system and operation system strategy seminars were held to enhance the exchange of the two areas Anshan and Panzhihua, so as to achieve mutual promotion and mutual improvement; special training was held for special talents in field of vanadium-titanium. Experts from domestic universities and colleges were appointed to make 15 lectures on modern smelting technology, and more than 1,000 professional and technical personnel participated in the training and study.

Ansteel Engineering Technology Co., Ltd. Held a Designer Three-dimensional Design Skills Competition.

Scientific and Technical personnel of Angang are utilizing laser to weld robots for topic research.

Training of Operation and Management Talents

Excellent employees were selected to participate in the training sessions for the young and middle-aged management talents of the state-owned key enterprises which were held by the Chinese Academy of Governance, special topic study sessions about responding to foreign investment risk and implementing strategy of going global, and the corporate merger and acquisition and capital operation, corporate culture symposium, anti-trust, anti-dumping symposiums held by China Business Executive Academy, Dalian. 53 training sessions such as training sessions for improving the leadership ability of leaders, reading classes for leaders, legal knowledge training sessions for leaders, corporate strategy seminar, management ability seminar for executives, enterprise internal control and overall risk management training sessions, etc., and the training reached 3,580 person-times.

Hu Angang, Dean of the Research Institute of the National Conditions, Tsinghua University, professor and doctoral advisor of the School of Public Policy and Management, Tsinghua University, made special reports.

Ansteel Group Corporation held management personnel training sessions.

Case: Carrying out "Double Study" Activity

To further improve the working efficiency of the cadres, Pangang initiated "Impart, help, lead" and "mutual study of A and B roles" activities among the management personnel. "Impart, help, lead" activity adopted the approach of "veteran leads the new employees" and "senior leads the junior", and determined that the master and apprentice carry out the "Impact, help, lead" of business knowledge and work experience. "Mutual study of A and B roles" means that an employee in some position is the role A, appoint an employee in another position as the role B, the two roles A and B learn from each other, master each other's business knowledge, work contents and requirements, so as to achieve the requirements for being able to replace or become competent in the business of each other in case of necessity.

Training of Technicians

Technicians and senior technicians were selected to further their study in colleges and universities, and innovation capability training sessions were held. 198 technicians were chosen to further their study in Tianjin University of Technology and Education, and at the same time, 14 innovation capability training sessions for high-skilled talents were held, and more than 500 employees participated in the study. Technicians were selected to receive training in Chengdu Technician College and Kunming University of Science and Technology. Training and evaluation of technicians were constantly carried out, and 4,686 employees of Ansteel Group Corporation passed the occupational skill evaluation; 529 employees of Pangang Group Company Ltd. passed the assessment for technician and senior technician, and 216 employees passed the technician review examination.

To advance the construction of the highly skilled talents team, 2012 Ansteel Group Corporation Technical Contest of Employees was held. 21 types of work participated in the contest, more than 50,000 employees of the Corporation participated in the technical training and technical practice activity of various levels, the employees' activeness in position study, position innovation and position talent were stimulated, and 20 employees received the title of "technical champion", and 228 employees received the title of "technical experts". With the opportunity of Ansteel Group Corporation Technical Contest of Employees, the basic units extensively carried out employee technical training, technical contest, technical competition, and technical communication activities, and 3,388 pairs of master and apprentice were established. Pangang Group Company Ltd. was awarded the "The 11th Outstanding Contribution Award for Technical Talents Training" by the Ministry of Human Resources and Social Security of the People's Republic of China.

2012 Technique Contest for Employees of Ansteel Group Corporation and Commendation Meeting for the Naming of Advanced Operation Approach.

Technique Contest for Employees of Ansteel Group Corporation.

Carrying out Employee Technological Innovation and Labor Competition Activity

A new platform for employee independent innovation, position talent, and achievement and contribution was constructed. In 2012, innovation workshops which were named by using the names of the frontline employees were set up, such as "Li Yanjia Innovation Workshop" and "Li Xinlin Innovation Workshop", and the basic units set up 71 labor model workshops; the basic units established 1,153 employee innovation teams, carried out 2,015 technological innovation projects, and made a benefit of 239 million RMB. The appraisal for the Technician Research Achievement Award was carried out, 258 projects were reported, and 129 of them won the awards; 32 advanced operation approaches of Ansteel in 2011-2012 were named and praised.

Labor contest activities were carried out, with themes being "tap potentials and overcome difficulties, reduce cost, increase efficiency and make contribution", "Ansteel key economic technical indicator research", and "energy-saving and emission-reduction for large-scale energy consuming production equipment". 1,009 research labor contests were organized and 2,174 production and technological problems were solved.

Leaders of Ansteel Group Corporation confer awards on the Gold Award Project representative of the 7th International Invention Exhibition.

Ansteel Group Corporation sets up Employee Innovation Workshop.

Employee Occupational Development

The promotion channel for management talent

The management talents were appointed in accordance with the principle of "moral first", and performance-based promotion, the scale and scope of competitive selection of senior management talents were reasonably decided, and the approach and method of competitive selection were improved. With study and training, position communication, and practice as the main approaches, the capability and quality of management talents were rapidly improved, so as to promote the career development.

The promotion channel for professional and technical talents

Engineering technical position grading was established and improved, promotion channel for professional and technical talents was broadened, through conducting the work of establishing engineering technical position grading pilot, the promotion channel for engineering professional and technical talents was established. The engineering technical grading pilot work was conducted in Angang Steel Co., Ltd, Angang Equipment Cooperation Center, and Ansteel Group Mining Company, and 32 chief engineers, 46 director engineers and 146 executive engineers were appraised and appointed in the three pilot units.

The promotion channel for skilled operation talents

High-skilled talents grading was set up, the promotion channel for skilled operation talents was broadened, and the high-skilled talent grading was set up in processes with high technical contents in the main steel production processes. Combined with salary distribution system reform, the pilot work was carried out in Angang Steel Co., Ltd., Mining Company Limited, and Angang Equipment Assisting Center of Ansteel Group Corporation, and the activeness and creativity of high-skilled talents were further stimulated.

CHAPTER 07
Social Performance

Social Contribution

Construction of the Corporate Credibility System

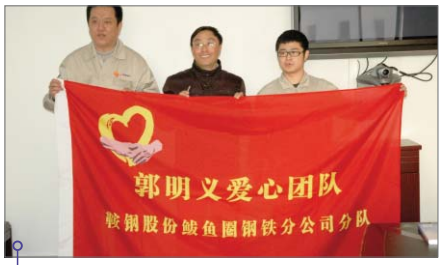
Social Contribution

Building of Guo Mingyi's Charity Team

The construction of Guo Mingyi's charity workshop and charity team was carried forward. Guo Mingyi's charity workshop received more than 300 visiting units and groups and over 10,000 persons altogether throughout the year, processed and registered more than 8,000 pieces of ask-for-help messages, and completed the registration of over 200 groups and over 500,000 volunteers. The basic units under Ansteel Group Corporation set up 202 Guo Mingyi's charity teams, nearly 30,000 employees participated in the team, over RMB1.3 million was donated for difficulty employees and students in total, over 1 million ml blood was donated, over 2,000 Hematopoietic stem cells samples were donated, more than 1,000 volunteers donated the body organ, and more than 3,700 employees participated in the Red Cross volunteer rescue team and service team; among the 9 Hematopoietic stem cells samples donation volunteers who had successfully completed the matching in Anshan City, 8 were from Ansteel Group Corporation; more than 1,800 employees joined the "Guo Mingyi's charity team weibo group " of Sina weibo to participate in the activity of civilized network and initiating new customs. Ansteel Group Corporation was called "the most caring enterprise with the most volunteers among the major enterprises in China" by the Propaganda Department of the CPC Central Committee.

Guo Mingyi's charity team, immediately subordinate to the authority of State-owned Assets Supervision and Administration Commission of the State Council, carried out inspection in Ansteel Group Corporation.

State-owned Assets Supervision and Administration Commission of the State Council held the Flag Presentation Ceremony of Central Enterprise Guo Mingyi's Charity Team in Beijing.



Guo Mingyi's Charity Team Angang Steel Co., Ltd. Bayuquan Steel Branch sub-team set up.

Employees of Ansteel Group Corporation donated Hematopoietic stem cells, becoming the enterprise with the most Hematopoietic stem cells donators in the country.

Case: Developing the Spirit of Love and Dedication, Carrying out the Activity of Blood Donation

In February 2012, the number of blood donators in Anshan City Central Blood Station reduced and the blood bank didn't have enough blood. Ansteel Red Cross developed the spirit of humanistic love and dedication, organized the employees from the member units to carry out the blood donation activity with special meanings. Within two weeks'time, 520 employees from 14 member units participated in the blood donation activity without payment, 119,500 ml blood was donated in total, effectively eased the blood shortage issue of Anshan City Central Blood Station.

Employees of Ansteel Group Corporation participated in the activity of blood donation for nothing in return.

Social Donation

In accordance with regulations on donation management, Ansteel Group Corporation specified donation management, actively engaged in social welfare undertaking, and endeavored in poverty alleviation and unit-to-unit aid program. In 2012, Ansteel Group Corporation donated RMB 10.9757 million in total. Pangang Group Company Ltd. was bestowed upon the title of "Central Enterprise Model Entity in Poverty Alleviation" by the State-owned Assets Supervision and Administration Commission of the State Council, and was granted the title of "Model Entity in Poverty Alleviation" by Sichuan Province.

Project	Purpose	Amount of Donation
Disaster Relief	Support the disaster-stricken area in Anshan City to combat the flood and provide disaster relief	3.005 million
	Support the disaster-stricken area in Yingkou City to combat the flood and provide disaster relief	500,000
Poverty Alleviation	Assist the foundation construction of Shihuiyao Town, Xiuyan County, Anshan City, and provide relief to needy families	340,400
	Assist Tibet area	200,000
	Assist Gesala and Wenquan Towns of Yanbian County, Panzhihua City, Sichuan Province to construct and reform the road in the village and the community	600,000
	Assist Baima and Wanqiu Towns of Miyi County, Panzhihua City, Sichuan Province to repair the village roads	500,000
	Assist the towns around the east area, west area and Renhe area in Panzhihua City, Sichuan Province to restore and construct flood control ditch, and reform and construct village and community roads	1.91 million
	Assist Puge County, Liangshan prefecture, Sichuan Province to construct the comprehensive experiment building in the County Nationality Middle School to improve the school conditions	600,000
	Assist Butuo County, Liangshan prefecture, Sichuan Province to implement the Xi family new house construction to improve the living environment of the villagers	500,000
	Assist the poverty villages in Pan County, Guizhou Province to develop the aquaculture	1 million
	Assist Heping Village, Wangcang County, Guangyuan City, Sichuan Province to construct the villager activity center	1 million
Charity	Donate to Sichuan Poverty Alleviation Foundation to use for the major disease assistance in rural areas	50,000
	Donate to Shanghai Charity Foundation to use for welfare relief and public welfare cause	12,000
Education Aids	Assist children of difficulty, needy employees to go to school	758,300
	In total	10.9757 million

Full Support for Flood-Combating and Disaster-Relief of Anshan City

In August, 2012, affected by typhoon "Damrey", the most serious flood disaster in meteorological record hit Haicheng, Xiuyan, and other areas of Anshan City. After the occurrence of the flood disaster, Ansteel Group Corporation responded rapidly, fully supported flood-combating and disaster-relief in Anshan City, organized personnel and vehicles to form rescue team to go to the frontline of flood-combating and disaster-relief, participated in the emergency repair, people transferring, material transportation, and post-disaster reconstruction of the disaster-stricken areas. At the same time, medical personnel were selected to go to the disaster-stricken area to carry out health and epidemic prevention work. In the flood-combating and disaster-relief, the rescue team of Ansteel Group Corporation assisted over 2,800 affected persons, rescued more than 20 vehicles from the flood, and donated RMB 3.34 million to the disaster-stricken area.

The rescue team of Ansteel Group Corporation are transferring the flood-stricken people.

Fully Engaged in the Rescue Work of Xiaojiawan Coal Mine Gas Explosion Accident

In 2012, when the "8•29" gas explosion accident in the Xiaojiawan coal mine, Panzhihua City, Sichuan Province happened, following the unified deployment of Panzhihua City Rescue Headquarters, Pangang Group Company Ltd. immediately started emergency plans, related medical staff went to the scene of the accident in the first time, fully engaged in the rescue work of the accident, actively cooperated with the related parties of the Panzhihua municipal government to do the rescue work, set up rescue leading team and medical rescue expert team, and medical rescue team stayed at the site to ensure the smooth process of the casualty rescue work, creating good conditions for the orderly development of the accident rescue.

Financial Aid for Schooling in Golden Autumn

Ansteel Group Corporation took the activity of "Financial Aid for Schooling in Golden Autumn" as an important part of the poverty alleviation work, so as to ensure that no children of the employee families suffering from financial difficulties were denied access to school education. The activity of "Financial Aid for Schooling in Golden Autumn" was carried out at the beginning of every academic year, so as to solve the schooling issue of children of employees in poverty or extreme poverty. In 2012, Ansteel Group Corporation granted financial aid worth RMB 758,300, aided 493 children of employees in poverty, and provided souvenirs for 353 newly admitted university students.

Employee representatives of Bekaert Ansteel Tire Cord (Chongqing) Co., Ltd. and the Shuanglu Primary School of Shuangqiao District, Chongqing City celebrated the "June 1st Children's Day together, and the company provided children's books to the 55 children in poverty or left at home as holiday presents.

Angang Steel Co., Ltd. involved emotional care in the activity of "Financial Aid for Schooling in Golden Autumn". Besides aiding children of employee families in poverty or extreme poverty who were admitted to universities, Angang Steel Co., Ltd. also wrote *A Letter to Children of Employees of Angang who were Admitted to Universities*, and sent the letters to the aided children of employees in difficulty. Besides congratulating their admission, Angang also encouraged children of employees in difficulty to build the confidence of overcoming the difficulties.

Young Volunteers Activities

In 2012, with the top priority given to "turning back and controlling the loss to increase the benefits", centering around work in such aspects as tapping the potential, reducing the cost to increase the profits, energy conservation and emission reduction, and safety production, the young volunteers of Ansteel Group Corporation extensively carried out "Saturday Voluntary Dedication Day" themed activities of voluntary service, conducted such activities as recovery of iron and steel scrap, repairing the old and utilizing the waste, and investigating the safety risks, etc.. Altogether 5917.3 tons of iron and steel scrap was recovered, and 16,464 pieces of spare parts were repaired. While serving the enterprise and making contribution, the young volunteers set up the goal of "striving to be the inheritors of the Lei Feng spirit in the new times", vigorously carried forward the volunteer spirit of "dedication, friendliness, mutual assistance, progress", helped the poverty, assisted the poor and dedicated the care, and donated 1,280 books to the poor students in Gansu. The activities of "hand-in-hand" education aid were carried out, RMB 154,000 was donated, and 624 children of employees in difficulties were assisted. 462 pairs of helping pairs on a "many-to-one" or "one-to-one" basis were formed with employees in poverty, retirees and employees staying at home, and lonely elderly and disabled children, and services were provided for them regularly.

In 2012, the young volunteers of Ansteel Group Corporation altogether carried out 838 various voluntary service activities, and over 16,300 people participated in the activities. 409 young volunteer service teams were formed with 5,950 volunteers in registration. Gu Song, a young man with Ansteel, was rewarded the Excellent Award of the 9th China Young Volunteer. The "Saturday Voluntary Dedication Day" themed voluntary activity of Ansteel youth was rewarded the title of "Central Enterprise Gold Medal Young Volunteer Service Project" by the Central Enterprise Youth League Working Committee.

Young volunteers of Ansteel Group Corporation carried out the activity of "Elderly Service Month".

Young volunteers of Ansteel Group Corporation are providing handy services for the public.

Young volunteers of Ansteel Group Corporation carried out activity of Donation and Education Aid.

Construction of the Corporate Credibility System

Taking credibility as a cornerstone of the company, Ansteel Group Corporation strengthened construction of honesty and credit comprehensively in the aspects of notion, system, institution, and carrier, and constructed management system of honesty and credit, endeavoring to shape the image of integrity of the Corporation.

Cultivation of the Operation Philosophy of Honesty and Credit

Ansteel Group Corporation vigorously carried forward the basic ethics of courtesy and honesty, set up 10 cultural and education bases such as the employee moral cultivation base, the quality education base, the honor traditional education base, the warning education base, the integrity culture demonstration base, etc.. The education for the political character, professional ethics and personal qualities of employees were enhanced, and the integrity concept of "creating world brand with honesty and credit in accordance with laws, build harmonious Ansteel with integrity" was cultivated. The contents of Ansteel employee moral cultivation base were adjusted and enriched, the "six development concepts" were integrated into the base education, and activities of learning from such Ansteel moral models and spiritual civilization models as Meng Tai, Wang Chonglun and Guo Mingyi. In 2012, Ansteel employee moral cultivation base altogether received 1,500 person-times to visit and study.

The Construction of an Operation Environment of Honesty and Credit

In 2012, Ansteel Group Corporation and the representatives of 40 suppliers held the "talking about integrity in cases to achieve win-win development" integrity business forum. Combined with the work ideas of implementing "three steps", carrying out "four activities", setting up "six development concepts" and finally realizing "one target" proposed by Ansteel Group Corporation, the thinking of establishing long-term strategy with providers was enhanced, providers were led to actively participate in the construction of punishing and preventing corruption system and the construction of integrity culture, and the idea of win-win development was set up to create business environment with integrity and honesty and credit.

Operation with Honesty and Credit in Accordance with Laws

Ansteel Group Corporation adhered to the principle of operating in accordance with laws and honesty and credit in production and business activities, strictly followed national laws and regulations, business ethics and industrial rules, as well as international conventions; the legal education of all employees was enhanced, employees were led to consciously increase the legal awareness to express interests demands in accordance with laws and safeguard legitimate rights and interests, so as to ensure the harmony and stability of the enterprise. The contracts were faithfully performed, commercial credit was abode by, and unfair competition was opposed; stakeholders were regarded, the rights and interests of investors and creditor were safeguarded, the rights and interests of consumers were protected, values were created for clients, and cooperation developments were conducted with the member units of the supply chain. In 2012, no incidents against laws or regulations happened in international or domestic operation of Ansteel Group Corporation.

Continuous Development of the "Honoring Contracts and Valuing Credibility" Campaign

Ansteel Group Corporation constantly improved its contract management, guaranteed the continuous and effective development of the "Honoring Contracts and Valuing Credibility" campaign, explored, summarized and formed the "two preventions, three management and five controls" integrated contract management operation mode with the main line of legal risk prevention and adapting to the requirements of modern enterprise system, formed comprehensive contract management control system, the demonstration contract text utilization rate reached 100%, and the contract performance rate reached 100%. Ansteel Group Corporation had been awarded the honorary title of national-level enterprise of "Honoring Contracts and Valuing Credibility" for 12 years consecutively, Panzhihua Mining Co., Ltd. was bestowed upon the honorary title of national-level "Honoring Contracts and Valuing Credibility Enterprise", Pangang Group Engineering Technology Co., Ltd., Pangang Group Sichuan Great Wall Special Steel Co., Ltd., Pangang Group Chengdu Iron & Steel Co., Ltd., and Panzhihua Iron & Steel Co., Ltd. Machinery Branch were awarded the title of "Honoring Contracts and Valuing Credibility" enterprise of Sichuan Province.

Achievements of the Honesty and Credit System Construction

Ansteel Group Corporation operated with honesty and credit in accordance with laws and thus won affirmative recognitions from all walks of life. In 2012, World Steel Dynamics published the latest ranking of "Competitiveness of World-class Steel Enterprises", Ansteel Group Corporation was ranked 22nd, the 2nd among the listed steel enterprises of mainland China; Ansteel Group Corporation was ranked 41st in the rankings of the 9th Top 500 Enterprise Brands with the Most Value in China, and its brand value increased by approximately RMB 2.874 billion. The "PG" trademark of Pangang was identified as China Famous Trademarks by the Trademark Office of The State Administration for Industry & Commerce of the People's Republic of China; Pangang Group Company Ltd. was rated as AAA enterprise at the top credit level in terms of special credit rating; Angang Motor Transport Co., Ltd. was rates as the 2012 Honesty and Credit Enterprise of Top 100 China Road Transport Enterprises by China Road Transport Association; Panzhihua Iron and Steel Automotive Company was rated as Top 50 Logistics Enterprise of Sichuan Province in 2012; the two products "Panzhihua Brand titanium slag" and "Shanchuan Brand titanium dioxide" of Pangang Titanium Industry Co., Ltd. were awarded the tittles of the 10th Famous Brands of Sichuan Province.

Employees of Ansteel Group Corporation are receiving moral education on honesty and credit.

Pangang Group Company Ltd. conducted the legal publicity day activity with the theme of "improving the legal quality of employees and promoting the scientific development of Pangang".

In 2013, Ansteel Group Corporation will earnestly study and implement the spirits of the 18th National Congress of the Communist Party of China and Central Economic Work Conference; guided by Deng Xiaoping Theory, the important thoughts of "three represents" and scientific development concept, the mass line practical activity will be conducted solidly, the "three-step" will be further promoted and implemented, "four activities" will be conducted, "six development concepts" will be established, and finally the "one target" working though will be realized.

Steel sector cost competitiveness and variety profits-creation capacity will be enhanced vigorously, the self development and capacity of entrepreneurship and creating profits in non-steel sector will also be enhanced vigorously, and the management and control capacity of group corporation and the executive capacity of the regional companies will be enhanced vigorously, so as to succeed in the battle of turning back the loss and increasing the profits.

Strengthening Production Organization and Improving Production Efficiency

Ansteel Group Corporation will strengthen the production process control, implement lean production, in accordance with the principle of "Stability, high efficiency, good quality, and low consumption", vigorously reduce various material consumption and energy consumption, improve the technical and economic indicators, so as to ensure the lowest cost and the highest benefits. Production factor allocation will be optimized, the unified and efficient management and control system for the production factor allocation will be set up, cross-region production interactions will be enhanced, and resource complementation and synergy effects will be strengthened. The process logistics costs will be reduced, the management of stock and transportation of bulk materials, goods in process, finished products will be strengthened, the cost consumption between regions, processes of the production lines will be effectively reduced, and the occupation of funds will be reduced.

Stepping up Scientific Innovation, and Playing the Role of Science and Technology as the Primary Productive Force

Ansteel Group Corporation will step up the management of production, study, research and application, vigorously promote product structure adjustment, improve unique value-added products and leading products proportions, and realize first development and first delivery. The Corporation will promote the scientific innovation in key fields, enhance the development of eco-products, and the research and development of the overall upgrade common technology of steel products. The regional collaborative research innovation will be strengthened, so as to realize technology stratification and product homogenization. The Corporation will strengthen external cooperation, accelerate the introduction of sophisticated and practical new technology, and realize the breakthrough in such major process routines of stainless steel production, soft tinned plate production, the 3rd generation automotive steel, shape control technology, and galvanized process technology.

Pushing forward Marketing Service, and Increasing the Efforts of Regional Market Development

Ansteel Group Corporation will implement the promise of "four-guarantee", with the preconditions of guaranteeing product quality, guaranteeing cost competitive advantages, guaranteeing the delivery, and guaranteeing the after-sales service, connect with the clients comprehensively, focus on marketing specialization, realize service differentiation, convert the pure marketing products into the comprehensive marketing brand of "marketing + service + credit", build up new cooperation relations of honesty cooperation, mutual benefits and win-win. Ansteel will scientifically plan the domestic market region layout, constantly explore new market, so as to use quality strategy to consolidate and increase the market shares of the leading products and other dedicated products. Ansteel will perfect overseas market layout, fully play the role of overseas processing bases and joint venture trading companies in serving clients and exploring market, promote export product structure adjustment, and improve the level of export products.

Promoting Green Manufacturing and Constructing Beautiful Ansteel

Ansteel Group Corporation will implement the energy conservation and emission reduction targets of the National "12th Five-Year Plan" and the energy-saving and low carbon task of ten thousand enterprises, carry out activities of clean production verification, energy auditing and energy efficiency standard assessment, and realize the energy management standard. The Corporation will develop green steel, carry out energy conservation and emission reduction process technology research, comprehensively promote contract energy management project, facilitate the application of such technologies as the VVVF control and energy saving technology of electric motor and transformer, reactive power compensation technology, and gas dry dedusting technology of blast furnace and converter, and guarantee that the emission of industrial exhaust gases and waste water reach the standard.

Deepening the Reform of System & Mechanism and Accelerating the Architecture Construction of Ansteel Group Corporation

Ansteel Group Corporation will improve the corporate governance structure, establish and optimize the organizational structures of Ansteel Group Corporation and the regional companies, and specify the responsibility interface and operational rules of Ansteel Group Corporation and the regional companies. The Corporation will smooth the management levels, promote the regional subsidiaries and the subordinate units to compress the management levels, realize vertical management, and enhance executive force. In accordance with the process management system and the operation mechanism of the Group Corporation, the Corporation will establish and improve the management system conforming to the operation mode of the Group, and focus on improving the management system of corporate governance structure, board of directors, and management.

Strengthening and Expanding Resource Enterprises and Promoting the Plan of Iron Ore Mine Construction

Ansteel Group Corporation will proceed with the construction of such projects as the central district extension mining of Yanqianshan underground mine and Gongchangling underground mine which have began in the Anshan area, and promote the Baima Mine mining expansion and renovation project and waste rock field belt conveyor project. Ansteel will actively explore quality coking coal project with good resource conditions and mature operation, so as to guarantee the supply of coking coal. Ansteel will accelerate the industrialization and scale management of vanadium and titanium resources, further optimize the production process of vanadium industry, improve resource utilization, extend the vanadium chain, and expand the high-end application field of vanadium. In titanium, Ansteel will expand the titanium resource, develop titanium dioxide, improve the added value and competitiveness of titanium metal products, and gradually set up the leading advantage of the links of industrial chain in the domestic high-end market.

APPENDIX I

NO.	Honors and Awards	Awarding Party (Unit)	Time
1	Pangang Group Company Ltd. was awarded the title of "National Civilization Unit"	The Central Guidance Commission for Building Spiritual Civilization of the Communist Party of China	February 2012
2	The "PG" trademark of Pangang was identified as China Famous Trademarks.	The Trademark Office of The State Administration for Industry & Commerce of the People's Republic of China	May 2012
3	Ansteel Group Corporation was rated as Top 500 Enterprise Brands with the Most Value in China in 2012	World Brand Lab	June 2012
4	Su Xingwen, Manager of Angang Slag Development Company, was rewarded the title of "2012 Person of the Year for China Renewable Resources".	China National Resources Recycling Association and China Economic Herald	June 2012
5	In the National Employment and Entrepreneurship Awards Conference, Angang Steel Co., Ltd. was awarded the honorary title of "National Advanced Enterprise for Employment".	State Council	July 2012
6	In the National Employment and Entrepreneurship Awards Conference, Angang Steel Co., Ltd. was awarded the honorary title of "National Advanced Enterprise for Employment".	Sichuan Provincial Government	July 2012
7	Ansteel Group Corporation was ranked 462 in the Fortune Global 500 list published by *Fortune* magazine of the USA	Fortune magazine of the USA	July 2012
8	At the 7th International Invention Exhibition, Ansteel Group Corporation won Excellent Group Award, and the patent achievements won 10 gold awards, 13 silver awards, 16 bronze awards, and 2 Excellent Invention Award.	China Association of Inventions	November 2012
9	Anshan Iron and Steel Group Corporation was rewarded the title of "Leading Enterprise in Internal Auditing"	China Institute of Internal Audit	November 2012
10	Ansteel Group Corporation was conferred the first honorary title of "Five Stars Brand of China Enterprises" and the title of "Special Contribution Entity in National Enterprise Culture Construction".	China General Chamber of Commerce, The Chinese Association of Productivity Science, and China Foundation of Consumer Protection.	December 2012
11	Nine products manufactured by Angang Steel Co., Ltd., such as Hot rolled and fine grain ribbed steel bars for the reinforcement of concrete, carbon steel wire rod for cold forging, structure steel plate for bridge, low carbon continual hot-dip zinc-coated steel strips, and the seamless steel pipe for the high pressure boiler, cold mold steel, and steel for the turbine blade produced by Pangang Group Jiangyou Great Wall Special Steel Co., Ltd. were rewarded the "Gold Cup Award" of 2012 metallurgical product physical quality.	China Iron and Steel Association	December 2012
12	Angang Motor Transport Co., Ltd. was rates as the 2012 Honesty and Credit Enterprise of Top 100 China Road Transport Enterprises.	China Road Transport Association	December 2012
13	The high-quality steel plate for appliances of Ansteel Group Corporation, and the 2nd and 3rd seamless steel pipes of nuclear station were awarded 2012 "China Iron and Steel Product Development Market Exploration Award".	China Iron and Steel Association	January 2013
14	"Saturday Voluntary Dedication Day" themed activities of voluntary service of Ansteel youth was rated as "Central Enterprise Gold Medal Young Volunteer Service Project".	Central Enterprise Youth League Working Committee	December 2012
15	*The Implementation of Resource Development Strategy for Promoting the Mineral Industries Transition* of Ansteel Group Corporation was rewarded the 2nd prize of the 19th National Enterprise Management Modernization Innovation Achievement.	Approval Committee for National Enterprise Management Modernization Innovation Achievement	January 2013
16	The "Heat Treatment Approaches and Units of Rails" of Pangang Group Company Ltd. was rewarded the 14th China Patent Excellent Award	Intellectual Property Office of Liaoning	January 2013
17	Angang Steel Co., Ltd. was rated as "Intellectual Property Advantage Enterprise of Liaoning Province".	Central Enterprise Youth League Working Committee	December 2012
18	"Molten Slag Hot Treatment and Metal Recovery Technology and Application", "Modern Rolling Technique, Equipment and Product Research Innovation Platform", and "The Key Technology in Using Agglomeration-hard Iron Resource to Produce Quality Steel-making Charge" those three achievements won the 2nd Award of National Prize for Progress in Science and Technology.	State council	January 2013
19	Ansteel Group Corporation was rated as Excellent Organization Entity in "National Employee Occupational Safety and Health Knowledge Contest".	The Organizing Committee Office of National Ankang Cup Contest	December 2012
20	Angang Steel Co., Ltd. was granted the title of "Clean Production and Environmental Friendly Enterprise of China Iron and Steel Industry".	China Iron and Steel Association	January 2013
21	Bayuquan Steel base was granted the title of "National Model Entity in Recycling Economy".	National Development and Reform Commission	December 2012

APPENDIX Ⅱ

Opinions of the State-owned Assets Supervision and Administration Commission of the State Council	GRI	CASS-CSR(2.0)	ISO26000	Page Number	Remark
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9. Improving corporate management, enhancing capability for control and management, reducing operational costs and strengthening risk management	4.9	P4.5		P18–20	

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9. Improving corporate management, enhancing capability for control and management, reducing operational costs and strengthening risk management	4.11	G1.2 G3.1	7.6	P16–18	
	4.12	G6.1 G6.2 G6.3	7.6	P10–12	
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	4.16	G5.1 G5.2 G5.4	5.3	P28–32	
	4.17	G5.1 G5.5 M1.1 M1.5 A4	5.3	P24/ P28–32/P82	
8. Paying taxes in accordance with laws, and protecting the rights and interests of investors and creditors; 9. Keeping improving capability for continuous profitability; 15. Taking part in non-profit programs for public good, such as charity and donation;	EC 1	M1.2 M1.3 M1.4 S1.6 S1.7 S2.10 S4.2 S4.7 S4.8 S4.9 S4.12 E1.6	6.8	P41–43/P61 /P69–71	
	EC 2	E1.12	6.5	P52–58	
14. Establishing a mechanism for regular salary increase, and paying social insurance premiums in full and in time	EC 3	S2.3	6.8	P61	
	EC 4		6.6	P41–43	
14. Sticking to the principle of distribution according to work and equal pay for equal work	EC 5	S2.10 S2.12	6.4	P61	
	EC 6	M3.3 M3.4 S4.5 S4.6	6.6	P29–30/ P40	
	EC 7	S1.8 S4.3 S4.4	6.6	P61	
15. Participating in community-based and non-profit programs for public good	EC 8	S4.1 S4.10	6.6 6.8	P46/P69–72	
8. Protecting intellectual property rights 12. Promoting independent innovation and echnological advancement	EC 9	M2.9 M2.10 M2.11 M2.12 M2.13 M2.14 E1.7	6.6	P44–47	
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	EN 3	E2.2 MEE2.3 MEE2.4	6.5	P52–53	
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11. Developing energy-efficient products to promote the energy-saving industry and developing circular economy to enhance efficiency in multi-purpose utilization of resources	EN 6	E1.1 E1.2 E1.3 E1.4 E2.1 MEE2.10 MEE2.11MEE2.15 MEE2.16MEE2.17	6.5	P52–55	
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11. Enhancing resource conservation and environmental protection	EN 8	MEE2.8	6.5	P55	
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11. Improving techniques and reducing pollution discharge	EN 10	E2.7 MEE2.8 E3.6	6.5	P55	
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11. Enhancing resource conservation and environmental protection	EN 14	E1.1 E1.3 E1.4	6.5	P57–58	
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11. Fulfilling responsibility for energy conservation and emission reduction, and taking the lead in completion of tasks for energy conservation and emission reduction	EN 16	E3.2 E3.13	6.5	P55	
11. Fulfilling responsibility for energy conservation and emission reduction, and taking the lead in completion of tasks for energy conservation and emission reduction	EN 17	MEE2.17 E3.13	6.5	P55	
11. Increasing inputs into environmental protection, l mproving techniques, reducing pollution discharge, and launching clean production	EN 18	E1.1 E1.3 E3.1 E3.2 E3.12	6.5	P55	
11. Fulfilling responsibility for energy conservation and emission reduction, and taking the lead in completion of tasks for energy conservation and emission reduction	EN 19	E3.13	6.5	P55	
11. Fulfilling responsibility for energy conservation and emission reduction, and taking the lead in completion of tasks for energy conservation and emission reduction	EN 20	E3.2 E3.13	6.5	P55	
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11. Enhancing resource conservation and environmental protection	EN 29	E1.14 E3.14	6.5	P52–58	
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14. Safeguarding employees' lawful rights and interests	LA 3	S2.3 S2.11	6.4	P59–61	
14. Promoting democratic management	LA 4	S2.2 S2.4 S2.8	6.4	P59–61	
14. Improving the institution of Employees' Congress, and stepping up efforts to make company-related issues known to employees, and promoting democratic management	LA 5	S2.24	6.4	P60–62	
13. Ensuring employees' vocational health, and preventing or reducing the incidence of vocational diseases and other illnesses	LA 6	S2.16 S2.17 S3.1 S3.2 S3.3 S3.4 S3.5	6.4	P48–51	
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14. Rendering care to employees' life by helping alleviate their concerns	LA 8	S2.19 S2.20 S2.26 S2.27 S2.28 S4.2	6.4	P62–64	
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14. Intensifying on-job education and training, and providing equal opportunity for personal development	LA 10	S2.22	6.4	P65–68	
14. Intensifying on-job education and training, and providing equal opportunity for personal development	LA 11	S2.21 S2.23	6.4	P65–68	
14. Intensifying on-job education and training, and providing equal opportunity for personal development	LA 12	S2.23	6.4	P65–68	
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14. Respecting and treating employees as equals and preventing any kind of discrimination based on gender, nationality, religious belief and age, etc	HR 4	S2.12	6.3	P61–62	
14. Signing the labor contract with employees and honoring the contract in accordance with laws	HR 5	S2.1 S2.8	6.3	P61–62	
14. Signing the labor contract with employees and honoring the contract in accordance with laws	HR 6		6.3	P61	
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8. Building business credibility, and preventing unfair competition and corruption in business activities	SO 3	S1.3	6.6	P24–26	
8. Building business credibility, and preventing unfair competition and corruption in business activities	SO 4	S1.2	6.6	P24–26	
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APPENDIX Ⅲ Feedback Form

Dear Readers:

This is a report on sustainable development released to the society by Ansteel Group Corporation. We would like to seek your opinions and suggestions so as to help us make an improvement in our fulfillment of social responsibility and achieve sustainable development. We would highly appreciate it if you could spare time to share your thoughts with us over the following issues:

1. Do you think this report reflects the significant impact Ansteel Group Corporation has exerted on economy, society and environment?

◯ Yes ◯ Fairly ◯ No

2. Does this report make an exact and comprehensive analysis of the relationship between Ansteel Group Corporation and the interested parties?

◯ Yes ◯ Fairly ◯ No

3. Are the information, data and indexes disclosed in this report clear, accurate and complete?

◯ Yes ◯ Fairly ◯ No

4. Are the content layout and format design in this report helpful to your reading?

◯ Yes ◯ Fairly ◯ No

5. What makes the most satisfactory part of this report?

6. Is there any necessary information omitted in this report?

7. What are your opinions about our reports on sustainable development to be released in the future?

Your information:

Name:

Entity of Employmentt:

Post:

Tel.:

E-mail:

Thank you for your warm support!

Ansteel Group Corporation

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