

2012

Sustainability Report

BAOSHAN IRON & STEEL CO., LTD.

Sincerity, friendliness, creativity
Building shared values



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Social Contribution per Share

The social contribution per share of Baoshan Iron & Steel Co., Ltd. is CNY 1.990 in 2012:

	Basic earnings per share: 0.600 RMB/share
+	Taxes paid in the reporting year per share: 0.767 RMB/share
+	Salaries and wages paid to employees per share: 0.514 RMB/share
+	Interest on borrowings paid to banks and other creditors per share: 0.107 RMB/share
+	Outward donations and values created for other stakeholders per share: 0.002 RMB/share
-	Other social costs arising from environmental pollutions and other incidents per share: 0.000 RMB/share
	Social contribution per share: 1.990 RMB/share

The foregoing "outward donations and values created for other stakeholders" only include outward donations.

About This Report

- ▶ Our Commitment
- ▶ Basis of the Report
- ▶ Range of the Report
- ▶ Language and Publishing Format

Our Commitment

The board of directors of the Company and all its members guarantee that this Report is free of any false representation, misleading statements or material omissions and are jointly and severally responsible for the authenticity, accuracy and completeness of the information contained in this Report.

Basis of the Report

This Report was prepared in accordance with the GRI *Sustainability Reporting Guidelines* (G3), the *Compilation Guide for Social Responsibility of Chinese Enterprises CASS-CSR2.0* and in reference to the *2009 Annual Reporting Memo No. 1 for Listed Companies: Preparation and Review of Internal Control Report and Corporate Social Responsibility Report* issued by Shanghai Stock Exchange, the *Guidelines on Preparation of Corporate Social Responsibility Report* and the Notice on Strengthening Social Responsibility of Listed Companies and Issuance of the *Notice of Shanghai Stock Exchange on Disclosure of Environmental Information*.

Range of the Report

From 1 January 2012 to 31 December 2012, unless otherwise stated, this Report mainly addresses economic, environmental, social and other activities of the various production units of Baosteel (Including: company headquarters in Luojing District, Bars & Tubes Business Unit, Shanghai Meishan Iron & Steel Co., Ltd., Baosteel NSC/Arcelor Automotive Steel Sheets Co., Ltd., Baosteel Huangshi Coated & Galvanized Sheet Co., Ltd.), as well as Baosteel Research Institute, Shanghai Baosteel International Economic and Trading Co., Ltd., Shanghai Baosight Software Co., Ltd., and Shanghai Baosteel Chemical Co., Ltd.

The financial data in the report is stated in RMB Yuan (CNY). For convenience, the following exchange rates are used in the report: USD 1 = CNY6.2855 (or CNY 1 = USD0.1591) (as announced by the People's Bank of China on 31 December 2012), and the Euro exchange rate used is EUR 1 = CNY8.3176 (or CNY 1 = EUR0.1202).

Language and Publishing Format

This Report is published in both Chinese and English. The Chinese version will prevail in the event of any discrepancy between the two versions.

This report is disclosed in both hard copies and PDF files, and the PDF file can be downloaded from Baosteel website at <http://www.baosteel.com/>. To be environmentally friendly, you are advised to choose the electronic version as far as possible, and we are going to reduce the number of hard copies as well.

The hard copies use renewable paper. To save the use of paper, we are controlling the length of this report. For more information that is not included in this report, please visit the website of Baoshan Iron & Steel Co., Ltd. or read the Company's annual financial statements.

In case of any question about this Report, please contact us by phone or letter at the following address:



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02

Green Manifesto and
Brand Construction

- ▶ Green Manifesto
- ▶ Brand Core Value
- ▶ Brand Commitment

Green Manifesto

Baosteel is the leading provider of environment-friendly products and services. It is also the advocator and practitioner of green steel industry chain. While promoting the comfortable modern life, we're also committed to reducing the burden on environment. We hereby promise:

- I. Develop the manufacturing technology with high energy efficiency and high resource efficiency, develop and promote products and systems with high energy and resource efficiency, share with the users the advanced idea and technology of environmental design, and provide products and services with high environmental performance.
- II. Conformity with the environmental rules and regulations is the bottom line for us. We hereby promise that we shall not add any hazardous substance by intention during the process of manufacturing. In the meantime, we shall endeavor to reduce the hazardous influence of the product during its usable life.
- III. Give priority to the cooperation with suppliers and subcontractors with good environmental performance, enhance the supplier's awareness and performance in sustainable development, provide green solution to users, and be committed to building green industry chain jointly.
- VI. Publish the product environment statement based on the LCA, reporting the environmental performance of our core products, facilitating the customers and other related parties in comparing the LCA influences of different products.
- V. Actively conduct cooperation with government, enterprises and with international partners, promoting the application of international research results, and keep pace with the world leading technology in energy saving and environment protection.

While enhancing the product properties, Baosteel endeavors to reduce the side effect on the environment, pursuing harmony between the enterprise and environment. The environmental management is integrated into the development strategy, business process, and daily operation of Baosteel. We are determined to continue exploring the sustainable development of the steel industry, shaping new social role and making concerted efforts in constructing a better world.

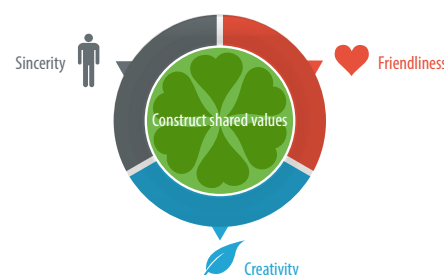
Brand Core Value

Sincerity, friendliness & creativity

Baosteel is intrinsically abided by the ethics of "Sincerity". We provide service whole-heartedly, and produce products honestly. All members of Baosteel value simplicity and consistency, and sticks to the intrinsic ethics of the society.

Baosteel pursues "Friendliness" in a rational self-surpassing manner. Believing that all beings can only seek mutual flourish and development, and sticking to the human-centered philosophy, Baosteel takes an initiative to repay the society and nature while creating value to fulfill itself.

Baosteel has in its genes the special one called "creativity", a gene for Baosteel's sustainable development and breakthrough in the future. Not confining ourselves to tradition, but embracing innovation, Baosteel, with its operation wisdom and pioneering mentality, has been a leading player on the international stage in advancing science and technology and innovating business modes.



Brand Commitment

Construct shared values

03

Baosteel Impression

- ▶ Baosteel in Children's Eyes
 - ▶ Baosteel in the Eyes of Employees' Families
- Recognition from Various Circles

Baosteel in Children's Eyes

May 13, 2012 was Baosteel's first "Plant Open Day" in the year. A group of special guests arrived on this day—51 young journalists from *Children Daily*. These young reporters are from the primary and middle schools in 18 districts and counties in Shanghai.



Young reporters visit to Baosteel History Museum



Baosteel is not only a plant, but also a spacious and beautiful park. Arriving at the 1580 hot-rolling zone, I was amazed at the sight of a neat and tidy factory. Nobody can be seen there, and we can only hear the rhythmic running of the machines. The green passage through the factory was spotless, and various large spare parts were lined up along the walls.

—No. 1 Central Primary School of Luwan District **Dai Jici**

Green trees are growing lushly in Baosteel and it is not a bit like a steel factory.

—No. 1 Primary School on North Zhongshan Road **Wu Yuyue**

In my imagination, a steel making factory must be packed with high-rising buildings, with many machines "roaring", and spurring a lot of waste gases. But as soon as I arrived at the Baosteel plant, I found this was wrong. In the huge Baosteel factory, we didn't see a "steel forest", but a beautiful park with flourishing trees, blooming flowers and singing birds.

—Yifu Primary School **Dong Humiao**

We were amazed to find that there were beautiful peacocks and the rare animal sika deers in Baosteel.

—Changqing Primary School **Shen Anru**





Baosteel in the Eyes of Employees' Families

The unexpected greenery in Baosteel is totally opposite to my imagination of a steel making plant. In this 20-square-kilometer plant, an area about the size of Macau, we find orderly arranged roads, lush trees, leisurely strolling sika deers and peacocks, grand pier machines, modern furnaces, and the astonishingly advanced rolling craft... Baosteel is indeed an attractive industry park for tourism.

What impressed us the most is Baosteel's modern management. In such a huge plant, we see only a few operators at the wharf, by the furnaces, and in the rolling plant. Baosteel has advanced equipment and management and is very different from the traditional labor-intensive manufacturing enterprises.

"What we are sharing is not only steel, but also our hearts." This is the slogan banner by Baosteel that inspires our admiration. Indeed, Baosteel is leading the industry not only because of its advanced steel products, but also because of its innovative operation concepts. Baosteel is shaping itself into a company that is more environmentally friendly, more considerate, and has more affinity.

—Jiang Lifan

The landscaping of Baosteel is really lush and gratifying. If it was not for the steel framework, the furnaces, tubes, one would think he is in a park. The trees, trumpet flowers, and meggranate flowers are beauticians and environmental guards of Baosteel. The ecological system and the environmental protection measures taken in Baosteel have best interpreted the concepts of modernity and a world-class factory.

—Chen Zhenli

In over 30 years of exploitation, Baosteel has changed the deserted bottomland into a modern steel factory. Baosteel has won admiration not only for its leading capability in making profit, production management, and scientific innovation, but also for its noble efforts in environmental protection.

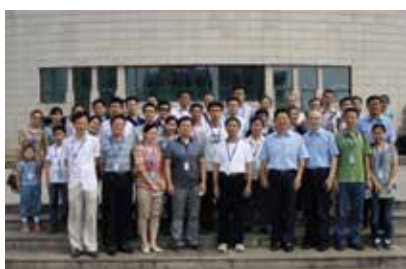
The lush trees, clean air and water in Baosteel all tell the story of how Baosteel people are committed to environmental production.

I'm most impressed by the strategy of "Utilizing the water reservoir at the time of tide ebbing, and giving priority to the civil use of water," which reveals the social responsibility of Baosteel.

—Zhou Liangming

"Close to Our Family Members, Experiencing Baosteel"

The series of activities titled "Close to our family members, experiencing Baosteel" was launched in August, 2012. This is one of the major activities carried out by Baosteel. Family members of Baosteel employees were invited to visit Baosteel for the first time to witness and feel the production process and the green working environment.



Note: "Utilizing the water reservoir at the time of tide ebbing, and giving priority to the civil use of water" refers to a strategy adopted when Baosteel was first built. In order not to affect Shanghai citizens' daily water use, the Company changed its original plan of getting water from the Dianshan Lake, where Shanghai people get their daily water. Instead, the Company "gets water from the Yangtze River at the time of tide ebbing, and closes the reservoir gate at the time of high tide" to avoid affecting people's daily life.

Baosteel Impression

Baosteel in Children's Eyes
Baosteel in the Eyes of Employees' Families
► Recognition from Various Circles

Recognition from Various Circles

Baosteel was widely recognized across all circles of the society in 2012:

Honors & awards	Issued by
Advanced unit of the national circular economy	The National Development and Reform Commission
Baosteel Ranked the 17th on 2012 China Top 500 Enterprises	<i>Fortune</i> (Chinese web)
In the 2012 "Top 100" of Chinese corporate social responsibility, including 50 domestic and 50 foreign investment in China, Baosteel Co., Ltd. was ranked third among 50 domestic companies and first among 12 domestic raw material industry companies. This year is the second consecutive year that Baosteel is awarded this honor and the ranking rises from fifth to the third place.	<i>Fortune</i> magazine (Chinese Version), U.S.
Baosteel won the Most Admired Knowledge Enterprise (MAKE) Award --the most respectful knowledge organization prize for the second time; won the Asian most admired knowledge enterprise award for the first time.	Teleos UK. (Institute of global knowledge management and intellectual capital R & D)
Two-piece can tinplate development and application won National Science and Technology Progress 2nd Award.	The State Council
"Development and Industrialization of Low Temperature High Magnetic Induction Grain-oriented Silicon Steel Manufacturing Technology" was awarded China Metallurgical Science and Technology Grand Prize. Baosteel also won 4 first prizes, and 1 second prize.	China Iron and Steel Association, and the Chinese Society for Metals
Advanced high-strength thin strip flexible manufacturing technology and equipment" won the first prize of Shanghai Science and Technology Progress Award.	Shanghai Government
"Independent Innovation of the sleeve lime kiln production with durability and energy saving features" won the third prize of Jiangsu Province Science and Technology Award	Jiangsu provincial government
"Feasibility of using COREX mixed coal gas heating in the coke furnace" won the first prize of technical innovation, and "An intelligent stable-voltage power conservation apparatus for the metal halide lamp" won the first prize of excellent rationalization proposal.	Shanghai Federation of Trade Unions, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, and State-owned Assets Supervision and Administration Commission of Shanghai Municipal Government
The Energy and Environment Protection Department won the honor of "National Advance Collective in Energy Conservation"	MOHRSS, the National Development and Reform Commission, Ministry of Environmental Protection, Ministry of Finance
Gained two Awards in the Third International World Steel Association of "Steelies" Award: The two projects Baosteel declared: <i>LCA excellent case and thermal state blast furnace slag for direct operation mineral wool technology</i> were awarded the life cycle assessment leader award and sustainable development report achievement award respectively.	International World Steel Association
Advanced Unit in Science and Technology Work in the Iron & Steel Industry of China	China Iron and Steel Association, and the Chinese Society for Metals
"Excellent organizer of the contest of energy saving and emission reduction by employees from enterprises of major energy consumption in Shanghai"	Shanghai Federation of Trade Unions, Shanghai Municipal Development & Reform Commission, Shanghai Municipal Commission of Economy and Informatization, and State-owned Assets Supervision and Administration Commission of Shanghai Municipal Government
Baosteel Co., Ltd. Energy & Environmental Protection Department won the title of "Shanghai Landscaping Advanced Collective"	Shanghai Greening Committee, Human Resources and Social Security Bureau and Civil Service Bureau
"The supplier of the year" of General Motor for 2011, the only one steel company to gain this award	General Motor

Honors & awards	Issued by
"The engine effect of competitive benchmarking management in the brand construction" and "Financial management mechanism innovation for the overall enhancement of enterprise's risk prevention capability" won the first prize of innovation in the metallurgy enterprise management modernization.	China Iron and Steel Association
The Project of energy management platform construction for Hubei Xingfa Chemical & industry group, which was completed by Baosight Software Company won the grand PMI prize.	PMI (China)
Baosight Software won the title of "Advanced Unit in Shanghai for Outstanding Quality Management"	Shanghai Association for Quality
Li Guobao--Chief engineer of Baosteel Silicon steel department, was honored as "China iron and steel industry advanced technical stuff".	China Iron and Steel Association, and the Chinese Society for Metals

As one of the major company under Baosteel Group, it has contributed a lot to the Group in terms of the honors and awards:

Honors & awards	Issued by
Baosteel was awarded as "The most caring donation enterprise", the third time for Baosteel to receive the China Charity Prize.	Ministry of Civil Affairs
Baosteel ranked No. 25 on the list of Asia-Pacific Area of 2012 "World Most Admired Companies"; and was honored as the most admired company in the industry of metals.	Fortune magazine, U.S.
Baosteel was ranked as the No. 10, appeared on the ranking list of 2012 China's Most Admired Companies Overall, is the only one company in the industry of metals on the ranking list.	Fortune magazine (Chinese Version), U.S.
Baosteel ranked 197 in Fortune 500, Compared with 2011, it is raised by 15 places. Meanwhile, Baosteel was in the 5th of the world top 500 steel enterprises.	Fortune magazine, U.S.
Baosteel ranked the 411st on 2012 "World Top 500 Green Enterprises", the only Chinese steel making company on the list	News Week, U.S.
Three rating agencies gave Baosteel global steel industry highest credit rating.	Three rating agencies Standard & Poor's, Moody's and Fitch
Baosteel ranked the 21st on 2012 China Top 500 most valuable brands	World Brand Lab
Baosteel Ranked the 21st on 2012 China Top 500 Enterprises	Shanghai Enterprise Committee, Shanghai Entrepreneur Association
Baosteel was on the list of China's top 100 green companies, and ranked the first among state-owned enterprises.	ChinaEntrepreneur Club (CEC)
Baosteel Group ranked at No.2 on the List of "Top 100 of Shanghai Enterprises in 2012" for the third consecutive year.	Shanghai Enterprise Committee, Shanghai Entrepreneur Association, Shanghai Federation of Economic Organizations

Message from the Top Management

In 2012, the Company was confronted with a severe business environment. Prices of fuel and raw materials experienced ups and downs, the homogeneity competition was more and more fierce, and the steel market remained gloomy. Faced with the "meager profit time", the Company perfected the operation management and control system with the users as the center; solidified the differentiation competition advantages, strictly controlled the cost and expenses, and ensured production and sales balance under economic operation. The Company achieved best business results among its domestic peers.

In 2012, the production of iron and steel was totaled 22.075 million and 22.996 million tons respectively. The sales of finished products and billets reached 23.566 million tons. It realized a profit of RMB 13.14 billion, and business revenue of RMB 191.51 billion.

The annual energy consumption was 17.37 million tons of standard coal, the comprehensive energy consumption per ton reduced by 8 kg standard coal from the annual goal, and the sulfur dioxide emission reduced by 2782 tons from the annual goal.

Ratio of R&D investment, ratio of new product sale and ratio of environmentally friendly products were 2.1%, 19.9%, and 87.1% respectively. The Company filed the application for 1126 pieces of patents, among which the invention patents accounted for 45.2%. The direct effect from R&D reached RMB 1.55 billion, and the new product trial production amounted to 1.805 million tons.

The annual investment on fixed assets totaled RMB 10.43 billion. Major projects, including: the product mix and process equipment upgrading and technical revamping project of Meishan Steel, addition of laser scribing and finishing units to the oriented silicon steel follow-up project, the coke oven upgrading and renovation project, the EIC system renovation of 1580 hot rolling, and the renovation of raw material port machinery, have all been completed as schedule and put into use, providing a favorable condition for the Company to enhance its business performance.

In terms of the capital market, the Company completed the sale of the Stainless Steel and the Special Steel business, and the acquisition of Zhanjiang Steel. The plan of stock repurchase and the plan of Luojing Area shutdown and adjustment were passed and carried out smoothly.

In 2012, the Company won the title of National Advanced Unit for Circular Economy Work, and the organization prize of the Most Admired Knowledge Enterprise in both Asia and China. Its "Development and Industrialization of Low Temperature High Magnetic Induction Grain-oriented Silicon Steel Manufacturing Technology" was awarded China Metallurgical Science and Technology grand prize.

In 2013, the Company's guiding principle is "deepening coordination to meet the challenges by differentiated competition; innovating to reduce the cost and achieve best performance." Its goal of operation is as follows: it will generate a total of operating revenue of RMB 171.5 billion, maintaining its best performance among domestic peers, with a sales volume of 11.33 million tons of exclusive and leading products, and a year-on-year drop of 10% in cost.

Guided by the Company's overall operational principle and goal in 2013, the Company will promote the following work:

1. Attach great importance to and step up the safety management. Apply the strict and critical spirit to the safety management process, motivate all employees to get involved in safety management, and explore the "Positive Impetus" mechanism that encourages employee participation in safety management. It will promote the essential safety construction on the one hand, and enforce the safety control by coordination teams.
2. Promote the synergy between production and sales to carry forward the economic operation. Enforce the process control and organizes production in a flexible manner; optimize the product structure and steps up the market expansion, and perfect the system and mechanize to enhance the contribution of technology innovation to business, and speed up the performance improvement of Meishan Steel and the Bars and Tubs Business Unit, so as to raise its overall efficiency.



Chairman of BOD: He Wenbo



President: Ma Guoqiang

3. Strictly control the expenses and further tap on the potential to enhance efficiency. It ensures the lowest manufacturing cost by looking at every process of production, enforces the target cost control of new products, analyses the cost reducing potential of various areas, focuses on the fast winning projects, and reduces the engineering cost. On the one hand, it will also enhance the price contribution from both purchase and sales, tapping on the market potential for efficiency. On the other hand, it will carry out a firm cost control, so as to enhance the efficiency through improved management.
4. Focus on the customer needs and enforce the customer-oriented management. Enforce the customer-oriented management, develop new business modes, optimize the technical service system, and explore the e-commerce. Give more emphasis to the customer orientation, build an outwardly customer-driven operation mechanism, raise the goods supply guarantee capability, and intensify the new product development.
5. Promote effective operation of energy and environmental protection management system, and realize the energy saving facility status management and all-process control, and tap on the energy saving potential. Speed up the application of energy saving and emission reduction technologies, and promote the three-year action plan for plan environment improvement. In the meantime, the Company will step up the green R & D, carry out green purchase, promote green production and design green marketing.
6. Give full play to the driving power of economic incentive, continuously optimize the business supplementary to production, and enhance the labor productivity in all sections by 5%.
7. Unify the employees, and inspire all to be at their best. Improve the payment incentive mechanism, and build a high-level management team, and strengthen the talent cultivation.
8. Fully understand the significance of Zhanjiang Steel Project, spare no pains in carrying out the construction and operation preparation for Zhanjiang Steel Project, and appropriate arrange the human resources for the project.
9. Promote implementation of the new six-year development plan. The Company's 2013-2018 planning will stick to the "premium products" strategy, take the path of innovation and transformation, and maintain its competitive edges. It will closely combine the annual budget and the development planning, balance the short-term and long-term interest, and keep its best domestic industrial status.

As the steel market remains complicated in 2013, there are many uncertainties factors in the operational environment. Amid difficulties and challenges, the Company will actively carry out its plan of building itself into an industry leader. It will design and develop high-end steel materials, speed up the industrialization of initial products on the world scale; actively carry out the driver plan, clean production, and environmental protection throughout the process including R & D, purchase, manufacturing, and marketing. It will implement the common growth plan to further raise the labor productivity through more intense employee training and continuously heightened employees' payment perception level. It will take the initiative in carry out the new material developing plan, speed up the new material base construction and make good preparations. More effort will be made to develop the service sector; deepen the customer-centered corporate operation mechanism, and become a value-creating partner for the customers. It will implement the overseas business plan, speed up the overseas strategic layout, and stably promote the overseas project implementation.

Chairman of BOD:

President:

05

Capital Stock Change and Shareholders

- ▶ Capital Stock Change
- ▶ Shareholders and the Actual Controller

Capital Stock Change

Table of Capital Stock Change

Unit: Share

	Before this change		Increase/decrease of this change (+, -)					After this change	
	Amount	Ratio (%)	New shares issued	Complimentary Shares	Reserve transferred to stock	Others	Subtotal	Amount	Ratio (%)
I. Stock with trading restriction									
II. Stock without trading restriction									
1. RMB Ordinary share	17,512,048,088	100				-390,000,000	-390,000,000	17,122,048,088	100
2. Foreign shares listed at home									
3. Foreign shares listed abroad									
4. Others									
III. Total share	17,512,048,088	100				-390,000,000	-390,000,000	17,122,048,088	100

Change of the Share

On September 21, 2012, the Company performed the first repurchase. At the end of 2012, the Company wrote off 390,000,000 shares from among the repurchased ones, reducing the Company's capital stock from 17,512,048,088 shares to 17,122,048,088 shares. The shareholding by Baosteel Group rose to 76.68%.

Shareholders and the Actual Controller

Number of shareholders and top 10 shareholders

Unit: Share

Total number of shareholders at the end of 2012	539,035
Total number of shareholders in the end of the fifth transaction day before disclosure of this report	525,907

Top 10 shareholders

Shareholder	Nature	Shareholding (%)	Total shares held	Increase/decrease in the period	Restricted shares	Pledged or locked-up shares
BAOSTEEL GROUP CORP.	State-owned	76.68	13,128,825,267	17,570,037	0	None
ZHANGJIAGANG FREE TRADE ZONE QIANXING INVESTMENT & TRADING CO., LTD.	N/A	0.37	63,419,861	0	0	None
RUGAO CHANGRONG ORE STORAGE LIMITED	N/A	0.37	62,777,182	-7,408,165	0	None
INTERNATIONAL FINANCE—STANDARD CHARTERED (GOVERNMENT OF SINGAPORE INVESTMENT CORPORATION PTE LTD.	N/A	0.30	52,009,386	4,261,837	0	None
ZHANGJIAGANG FREE TRADE ZONE LIXIN INVESTMENT CO., LTD.	N/A	0.29	48,894,600	-9,732,001	0	None
ZHANGJIAGANG FREE TRADE ZONE RONGRUN INTERNATIONAL TRADE CO., LTD.	N/A	0.27	45,524,951	4,624,757	0	None
INDUSTRIAL AND COMMERCIAL BANK OF CHINA—SHANGHAI STOCK EXCHANGE 50 ETF FUND	N/A	0.25	42,237,509	-14,152,018	0	None
ZHANGJIAGANG FREE TRADE ZONE RIXIANG INTERNATIONAL TRADE CO., LTD.	N/A	0.25	42,120,356	-9,492,420	0	None
ZHANGJIAGANG HONGDA TRANSPORTATION CO., LTD.	N/A	0.24	41,544,158	-870,000	0	None
NINGBO FREE TRADE ZONE HONGGUANG INTERNATIONAL TRADE CO., LTD.	N/A	0.24	40,804,594	4,150,000	0	None

Top 10 unrestricted shareholders

Shareholder	Unrestricted shares	Share type and amount
BAOSTEEL GROUP CORP.	13,128,825,267	RMB ordinary share
ZHANGJIAGANG FREE TRADE ZONE QIANXING INVESTMENT & TRADING CO., LTD.	63,419,861	RMB ordinary share
RUGAO CHANGRONG ORE STORAGE LIMITED	62,777,182	RMB ordinary share
INTERNATIONAL FINANCE—STANDARD CHARTERED (GOVERNMENT OF SINGAPORE INVESTMENT CORPORATION PTE LTD.	52,009,386	RMB ordinary share
ZHANGJIAGANG FREE TRADE ZONE LIXIN INVESTMENT CO., LTD.	48,894,600	RMB ordinary share
ZHANGJIAGANG FREE TRADE ZONE RONGRUN INTERNATIONAL TRADE CO., LTD.	45,524,951	RMB ordinary share
INDUSTRIAL AND COMMERCIAL BANK OF CHINA—SHANGHAI STOCK EXCHANGE 50 ETF FUND	42,237,509	RMB ordinary share
ZHANGJIAGANG FREE TRADE ZONE RIXIANG INTERNATIONAL TRADE CO., LTD.	42,120,356	RMB ordinary share
ZHANGJIAGANG HONGDA TRANSPORTATION CO., LTD.	41,544,158	RMB ordinary share
NINGBO FREE TRADE ZONE HONGGUANG INTERNATIONAL TRADE CO., LTD.	40,804,594	RMB ordinary share

Remarks on affiliation, alliance or collusion among the aforementioned top ten shareholders

According to the Medium-term Notes Prospectus published by Jiangsu Shagang Group Co., Ltd. (Shagang Group) in May and November of 2011, the shareholders of Zhangjiagang Free Trade Zone Qianxing Investment & Trading Co., Ltd., Zhangjiagang Free Trade Zone Rongrun International Trade Co., Ltd., and Ningbo Free Trade Zone Hongguang International Trade Co., Ltd. are Shagang Group's shareholders. Rugao Changrong Ore Storage Limited is the joint stock company of the subsidiary controlled by Shagang Group. The actual controllers of Zhangjiagang Free Trade Zone Lixin Investment Co., Ltd., and Zhangjiagang Free Trade Zone Rixiang International Trade Co., Ltd. are both the major shareholders of Shagang Group. The controlling shareholder of Zhangjiagang Hongda Transportation Co., Ltd. is the shareholder of Shagang Group.

The Company is not aware of any connection among or between the top ten shareholders and top ten shareholders of shares without selling restrictions or that they are persons acting in concert as provided for in the Measures for the Administration of Acquisitions by Listed Companies.

05

Capital Stock Change and Shareholders

Capital Stock Change
Shareholders and the Actual Controller

Holding Company and Actual Controller

Holding company

Name	Shanghai Baosteel Group Corporation
Legal representative	Xu Lejiang
Date of incorporation	17 November 1998
Authorized capital	RMB 52.791 billion
Principal businesses and operations	As a governmental authorized investment vehicle and a state-owned holding company, Baosteel Group Corporation mainly deals with state-owned assets within the authorized scope set by the State Council. The Corporation has also been involved in investments in areas of iron & steel manufacturing, metallurgy and mineral products, non-toxic chemicals, electricity, piers, warehousing, transportation, and steel-related business, technological development, technology transfer, technical supporting, and technical management consulting, as well as in areas of import and export businesses approved by the Ministry of Foreign Trade & Economic Cooperation (MOFTEC), domestic and international trading where allowed, and import and export services of products and technology.

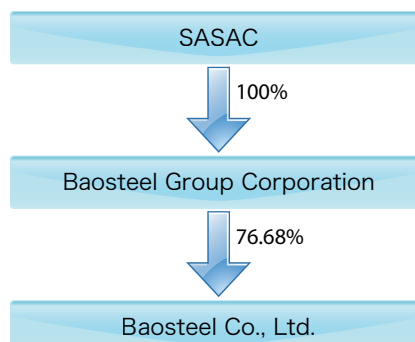
Actual controller

Baosteel's actual controller is the State-owned Assets Supervision and Administration Commission of the State Council (SASAC).

Changes of the holding company and actual controller

The holding company and actual controller remained unchanged in the reporting period.

The enterprise property rights and controlling relationship between the Company and its actual controller



Other Corporate Shareholders Holding Over 10% Shares

As at the end of the reporting period, the Company has no other corporate shareholders holding over 10% shares.

06

Structure and Governance

- Structure
Directors, Supervisors, and Senior Executives
Management Innovation
Anti-Corruption

Structure



The Company completed the sale of the Stainless Steel and the Special Steel business, and the acquisition of Zhanjiang Steel.

To adapt to the investment-driven economy policy, the Company attaches great importance to the market of major engineering projects, and strives to take creative steps in market exploring, customer relation management, and marketing strategies. It has a plan to solidify the steel product marketing by exploring the channel of major engineering project material sales, and to enhance the homogeneity product marketing by giving full play to the exclusive and leading products. With the Board of Directors' approval, it has set up an Engineering Material Marketing Department.

Structure and Governance

Structure

- Directors, Supervisors, and Senior Executives
- Management Innovation
- Anti-Corruption

Directors, Supervisors, and Senior Executives

Current Directors, Supervisors, and Senior Executives

Name	Position	Gender	Age	Start of term of office	End of term of office
He Wenbo	Chairman of Board of Directors	M	57	2012.04	2015.04
Ma Guoqiang	Director; President	M	49	2012.04	2015.04
Zhao Zhouli	Director	M	56	2012.04	2015.04
Zhu Junsheng	Director	M	52	2012.04	2015.04
Wang Li	Director	M	56	2012.04	2015.04
Buck Pei	Director	M	55	2012.04	2015.04
Wong Pik Kuen Helen	Independent Director	F	51	2012.04	2015.04
Yuh-chang Hwang	Independent Director	M	57	2012.04	2015.04
Liu Wenbo	Independent Director	M	44	2012.04	2015.04
Liu Zhanying	Chairwoman of Board of Supervisors	F	57	2012.04	2015.04
Guo Bin	Supervisor	M	41	2012.04	2015.04
Wu Kunzong	Supervisor	M	41	2012.04	2015.04
Lin An	Supervisor	M	56	2012.04	2015.04
Zhang Pijun	Supervisor	M	53	2012.04	2015.04
Li Yongxiang	Vice President	M	52	2012.04	2015.04
Zhou Jianfeng	Vice President	M	49	2012.04	2015.04
Wang Jing	Vice President	F	49	2012.04	2015.04
Feng Taiguo	Vice President	M	50	2012.08	2015.04
Chu Shuangjie	Vice President	M	48	2012.08	2015.04
Zhu Kebing	Chief Accountant, Secretary to Board of Directors	M	38	2012.08	2015.04

Notes: The term of office will end at the date when the 2015 Annual Shareholders' Meeting is finished.

Employment Change of Directors, Supervisors and Senior Executives

Name	Position	Change	Reason
He Wenbo	Chairman of Board of Directors	Hired	Continue to hold office in the new BOD
Ma Guoqiang	Director; President	Hired	Continue to hold office in the new BOD
Zhao Zhouli	Director	Hired	Continue to hold office in the new BOD
Zhu Junsheng	Director	Hired	Continue to hold office in the new BOD
Wangli	Director	Hired	Newly hired for the new BOD
Buck Pei	Director	Hired	Continue to hold office in the new BOD
Wong Pik Kuen Helen	Independent Director	Hired	Newly hired for the new BOD
Yuh-chang Hwang	Independent Director	Hired	Newly hired for the new BOD
Liu Wenbo	Independent Director	Hired	Newly hired for the new BOD
Liu Zhanying	Director	End of office	End of office term in the last BOD
Wu Yaowen	Director	End of office	End of office term in the last BOD
Katherine Tsang	Director	End of office	End of office term in the last BOD
Edward Tse	Director	End of office	End of office term in the last BOD
Liu Zhanying	Chairwoman of Board of Supervisors	Hired	Newly hired for the new BOS
Lin An	Supervisor	Hired	Continue to hold office in the new BOS
Guo Bin	Supervisor	Hired	Newly hired for the new BOS
Zhang Pijun	Supervisor	Hired	Continue to hold office in the new BOS
Wu Kunzong	Supervisor	Hired	Newly hired for the new BOS
Li Li	Chairwoman of Board of Supervisors	End of office	End of office term in the last BOS
Zhou Guiquan	Supervisor	End of office	End of office term in the last BOS
Zhu Kebing	Supervisor	End of office	End of office term in the last BOS
Li Yongxiang	Vice President	Hired	Continue to hold office upon expiry as the top management
Zhou Jianfeng	Vice President	Hired	Continue to hold office upon expiry as the top management
Wang Jing	Vice President	Hired	Continue to hold office upon expiry as the top management
Feng Taiguo	Vice President	Hired	Newly hired in 2012
Chu Shuangjie	Vice President	Hired	Newly hired in 2012
Jiang Licheng	Vice President	End of office	Resign from the post
Chen Ying	Vice President, Secretary to Board of Directors	End of office	Resign from the post
Lou Dingbo	Vice President	End of office	Leave office upon expiry as the top management
Pang Yuanlin	Vice President	End of office	Leave office upon expiry as the top management

Annual Remuneration

The remunerations of the Directors, Supervisors and Senior Executives for the year 2012 totaled RMB 14,396 million (pre-tax, the same in the following sheet).

(Unit: RMB Ten Thousand)

Name	Position	Compensation from share-holders or affiliated companies	Remuneration from the Company in reporting period (pre-tax)	Non-yearly remuneration from the Company
He Wenbo	Chairman of Board of Directors	Yes	-	
Ma Guoqiang	Director; President	No	150.8	
Zhao Zhouli	Director	Yes	-	
Zhu Junsheng	Director; Vice Secretary of the Party Committee	No	135.3	
Wang Li	Director	Yes	-	
Buck Pei	Director	No	35.0	
Wong Pik Kuen Helen	Independent Director	No	23.3	May-December, 2012
Yuh-chang Hwang	Independent Director	No	23.3	May-December, 2012
Liu Wenbo	Independent Director	No	23.3	May-December, 2012
Liu Zhanying	Chairperson of Board of Supervisors	Yes	-	
Guo Bin	Supervisor	Yes	-	
Wu Kunzong	Supervisor	Yes	-	
Lin An	Supervisor	No	121.5	
Zhang Pijun	Supervisor	Yes	38.1	Jan.-July, 2012
Li Yongxiang	Vice President	No	133.3	
Zhou Jianfeng	Vice President	No	133.3	
Wang Jing	Vice President	No	133.3	
Feng Taiguo	Vice President	No	128.9	
Chu Shuangjie	Vice President	No	133.4	
Zhu Kebing	Chief Accountant, Secretary to Board of Directors	No	71.5	Sep.-Dec., 2012
Liu Zhanying	Retired Director	Yes	-	
Wu Yaowen	Retired Director	No	1.0	Jan.-April, 2012
Katherine Tsang	Retired Independent Director	No	11.7	Jan.-April, 2012
Edward Tse	Retired Independent Director	No	11.7	Jan.-April, 2012
Li Li	Retired Chairwoman of Board of Supervisors	No	11.7	Jan.-April, 2012
Zhou Guiquan	Retired Supervisor	Yes	-	
Zhu Kebing	Retired Supervisor	Yes	-	
Jiang Licheng	Retired Vice President	No	39.7	Jan.-August, 2012
Chen Ying	Retired Vice President and Secretary to Board of Directors	No	39.7	Jan.-August, 2012
Lou Dingbo	Retired Vice President	No	19.9	Jan.-April, 2012
Pang Yuanlin	Retired Vice President	No	19.9	Jan.-April, 2012
Total			1439.6	

Note: "Compensation from share-holders or affiliated companies" refers to whether the Director or Supervisor or any other senior executive is paid by a shareholder or an affiliated company.

Note 1: According to "Interim Measures for the Remuneration and Treatment of the Board of Directors of a Central Enterprise in the Pilot Program on Board of Directors", Director Wu Yaowen stopped to get his yearly pension from Baosteel Co., Ltd. from January 2010. Instead, he will be paid meeting allowance according to the standard set by the State-owned Assets Supervision and Administration Commission of the State Council.

The annual remuneration for independent directors and outside supervisors who are not the Company shareholders is RMB 350,000 (pre-tax). Also, when the directors, supervisors, and senior executives attend the Directors' Meeting, Supervisors' Meeting and the Shareholders' Meeting, the Company will cover their traveling and hotel expenses.

Structure and Governance

Structure

Directors, Supervisors, and Senior Executives

▶ Management Innovation

▶ Anti-Corruption



Management Innovation

System and Risk Control

The Company responded actively to the environmental operation strategy and launched the promotion of green product marketing. It continuously perfected the management principle of Baoshan Iron & Steel, by laying more emphasis on the development concepts and connotation such as environmental operation, technological leader, and common development of employees and the enterprise. It practiced environmental operation, established a team of leadership and work groups to promote the green production marketing, and selected the environmentally friendly raw materials, workmanship and technologies. It also employed ecological design, pushed forward clean production, and carried out pollutant reduction and comprehensive treatment. It also established a promotion mechanism for green product marketing to launch an all-round green product marketing promotion plan.

Perfecting the energy management system of "three flows, one status". Abided by relevant laws and requirements, the Company promoted the energy saving procedures and technological energy saving, enhanced such controlling forces as environmental monitoring, data validity check, and treatment process flow check, and made politics operation of the "five-layer energy cost analysis method" guided by the "clarifying, refining, and process flow management" of energy cost. With all these measures, the Company strived to pursue a stable energy system and an economic operation.

Enhanced the environmental protection risk supervision. Combining the risk management of environmental protection, the environmental business, and the environmental management, the Company issued the *Measures for Environmental Incident Management*, and *Measures for Comprehensive Appraisal of Environmental Protection Management*, to standardize, with rules and regulations, the whole process management including risk monitoring, incident report, and emergency response, incident statistics, and information disclosure. It compiled and issued the risk monitoring report, gave warnings in a timely manner according to the risk monitoring indicators and monitoring strategies, and conducted professional supervision and follow-up for the warning information so as to ensure an effective risk control for environmental protection.

Optimized the system examination, and refined its internal control environment. An internal examination guidebook has been compiled to

clarify the focal points of internal examination. It has established a policy of "Reviewing" in three years for problems found to raise the effectiveness of the system examination. The Company has issued the *Guide for Department to Promote Risk Management Work*, and *Operation Handbook for Department to Promote Risk Management Work*. As a result, a matrix internal control model encompassing 18 corporate internal control guides and 30 company management policies has been built to facilitate the effective fusion of company internal management and risk management.

Informization Construction

Attached equal importance to the system renovation and operation security. By systematically sorting out the control flow of information system security management, improving the weak points of informization professional control, and revising the program and standard for information system authorization management, an informatized professional management system has been primarily built. The system applies to all procedures including informization planning, project building, transfer from development to maintenance, and operation management and control, and so on. According to the *Baseline for Classified Protection of Information System Security* (GB T22239-2008), it defines critical controlling points. By pushing forward the manufacturing management system security and major risk control project, the Company continuously enhanced its system operation and maintenance management. Also by closely monitoring the risk warning indicators—information system load and security incidents, it will ensure the system continuity to the maximum extent. The Company has been carrying out, in an orderly way, the collective project of 9672 system upgrading and renovation. Following the step-by-step switching pattern, the collective project has been smoothly upgraded to enhance the business efficiency of all sectors.

Built the on-line management platform for environmental protection. An information resource base for multi-system integrated application and an on-line management platform for environmental protection were established. As a result, it has realized on-line monitoring data source sharing, automatic water and air quality monitoring, and syncrized exterior information and geographic information. This platform is also useful in meeting the requirement of the environmental surveillance cameras of new plant area to be

added and for mobile surveillance. It will thus strengthen the pollution control and enhance the capability of over-standard emission advance identification and risk warning.

Site Management Improvement

Responding actively to the requirement of "raising capacities of central enterprises" by State-owned Assets Supervision and Administration Commission of the State Council, and in order to improve the overall management of the Company, it has looked into the "weakest points" of its business, and put forward challenging goals of 58 major enhancement tasks covering 17 areas in line with the basic management and professionalization work.

Focusing on the aspects of quality, cost, safety, and site improvement, the Company summarized and spread the successful cases, and implemented the "three-year plan of work team leader JK (self-management) counselor training" in an all-round manner to improve the team leader's ability in site management.

Taking hold of the base level, the Company strengthened the process management of the Six Sigma project and the self-management activity. It has compiled "Guide for site management improvement activity selection". By organizing analysis of the cases where the standard is quickly met, and by reviewing the project indicators and measures, the Company has raised the project effectiveness. In 2012, 211 Six Sigma Lean operation projects were carried out. 40 JK groups won the title of Excellency in Quality management conferred by the country, the metallurgy industry and Shanghai municipal government. Baosteel Iron and Steel has won the titles of "Advanced Enterprise in Continuous promotion of Six Sigma Management," and "Excellency in Quality Management Group Activity".



Anti-Corruption

Insisting on curing both root causes and symptoms of corruption, Baosteel Co., Ltd. has adopted comprehensive control, punishment and prevention, and prevention-oriented policy. In view of the "1001" goal^[Note 1] of discipline supervision, and centering on the main thread of probity risk recognition, warning and countermeasures, the Company laid emphasis on five major mechanisms including system, education, supervision, punishment and root cause treatment. By actively developing the prevention and supervision function of the discipline supervision organization, it promoted the mutual progress and coordinated development of anti-corruption work and the production and operation of the Company.

System building. Focusing on the major task of constructing punishment and prevention system, the Company had a firm grip on the principle of assigning the responsibilities to specific units and persons, carried out the key anti-corruption work in earnest, adhered to and refined the leadership system and work mechanism of Party ethos construction and anti-corruption work. It also defined the key tasks and turned these tasks into actual projects. In carrying out the projects, the Company intensified the process control, ensured that responsibility assignment and actual implementation of various measures were carefully carried out. 1103 copies of Target Liability Letter for Party Ethos Building and Anti-Corruption have been signed between the Company and employees at the various level, and 3348 copies of Commitment Letter of Self-discipline and Probity have been signed. In the meantime, efforts were made to continuously perfect the system, with 59 supervision policies reviewed, and 11 of which have been revised and issued.

Probity education. Adopting various methods including caution education, model education, and post risk education, the Company advanced the anti-corruption education for the leaders firmly. The self-educating platforms of the Company and the secondary unit leadership have been perfected, taking such forms as central study groups, leadership meetings, and democratic salons. An orientation was made for 322 new managerial personnel to cultivate in them an honest working style. Following the principle of "simple, easy to carry out, focused, and effective," the Company offered case education to employees with the business disposal power. In 2012, the Company and all units organized 595 education activities for Party ethos construction and

anti-corruption work, with the participation of 25167 person times. The Company continuously took measures to enhance the cadres' awareness of responsibility and of the overall situation, so as to strengthen the cadres' and managerial personnel's anti-corruption ability.

Efficiency supervision and special examination. Efficiency supervision was deepened, with a focus on the probity risk prevention and control and cost improvement, to push forward the procedures. In 2012, 194 efficiency supervision projects were carried out, with 550 supervision suggestions raised to promote the perfection of 319 rules and regulations. Project-based examination was also conducted for the core fields to intensify the policy implementation, and reduce operation risks. The examination of the "double excellence"^[Note 2] work in the engineering projects, helped to identify 6 kinds of prominent issues and 2 kinds of phenomena deserving attention, and rectification suggestions were given accordingly. Specific examination was also conducted for the implementation of "Three Majors and one Large"^[Note 3] decision-making system, cadres' working expenditure, and special fund utilization, with 7 kinds of typical issues sorted out and remedy suggestions given. For the subordinate 11 trading companies and 9 processing centers, on-site appraisal was carried out to identify the operation risks and provide management improvement suggestions.

Complaint and tip-off investigation. The Company intensified the complaint investigation, strictly punishing the violations of discipline and regulations, and establishing a linkage system for all complaints to promote expedite and strict treatment of all violation cases. Initiative was

taken in collecting public opinions and expanding information and case reporting channel. Emphasis was laid on the analysis of reported cases. In the process of violation case verification, the systems of "Three no-pass" and "One case two reports", to exert the root-cause remedy of the complaint verification and case treatment. Further measures were also taken to urge relevant units to step up the Party ethos construction and anti-corruption work and enforce the implementation of rectification measures and suggestions.

Source treatment. The probity risk identification and warning work was deepened, and typical treatment measures were summarized. As a result, a framework and tool combination for probity risk prevention was primarily formed. The Company promoted the transparent management under "sunlight," intensified the monitoring of various fields including sales, procurement, and engineering project construction, and enforced the online supervision for online transactions. It continuously promoted the "sunlight" project, issued a guide for the engineering project "double excellence" work, and stepped up the process tracking and service guidance. More efforts were made to supervise the public bidding and procurement, with a guide compiled for bidding and procurement probity risk prevention. It insisted on commercial bribery control via normalizing operation, and purifying business environment. As for suppliers engaged in unfair competition activities in business with Baosteel, the Company would release lists of no-entry individuals and no-trading companies inside the Company regularly.

Holding "Lotus Cup" New Media Contest

To push forward the probity construction and anti-corruption work, and to bring the synergic advantage between the IT platform and educational resources of Baoshan Iron and Steel into full play, the Company actively explored new forms of methods of probity construction and the first "Lotus Cup" new media contest for Party probity construction was held in the year. It is helpful to enhance the effectiveness of the probity education and raise people's awareness of probity and self-discipline. The contest solicited 1201 pieces of works of various types. 62 pieces (sets) of works including cartoon images, caricatures, mini-films, mini-stories, and mini-SMS won prizes. Among these works, the cartoon figure "Steel Baby" submitted by Baosteel International won the grand prize, and the "Steel Baby" was chosen as the "Lotus" image ambassador of Baosteel Co., Ltd. A micro-blog named "Baosteel Baby" (<http://weibo.com/gangxiaobao>) was formally launched on sina.com, serving as a platform for Party Probity Construction of Baosteel Co., Ltd.



"Lotus" image ambassador "Steel Baby"

The work uses "lotus" and the steel flower as the prototypes, symbolizing probity and integrity. The Baosteel logo "B" is contained in the design of Steel Baby.

Note 1: "1001" objective: 100% implementation of core procedure probity risk warning and prevention, "0" record of noncompliance by cadres and managerial personnel, "0" record of noncompliance by employees with the business disposal power, and 100% cadre liability for probity related issues.

Note 2: Double Excellence: Excellent Project, and Excellent Leaders

Note 3: Three Majors and One Large-scale: Major decisions, major appointment and removal of personnel, major project arrangement and large-scale capital operation.

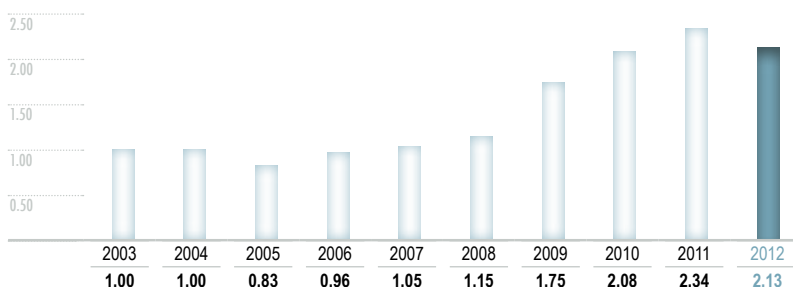
Innovative Development

- ▶ Furthering the Construction of Knowledge-Based Enterprise
- ▶ Furthering the Implementation of Intellectual Property (IP) Strategy
- ▶ Deepening the Industry-Academy-Research Cooperation
- ▶ Speeding Up the Technology R & D of New Products

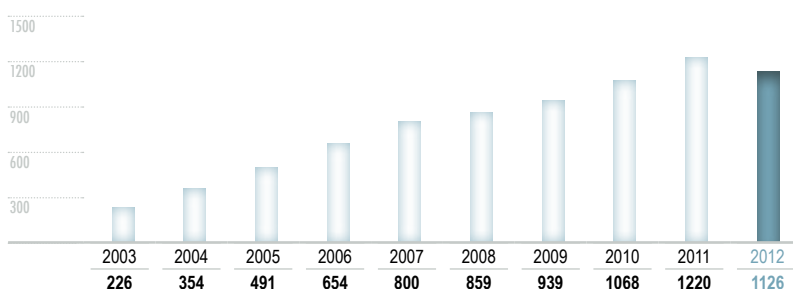
Furthering the Construction of Knowledge-Based Enterprise

In 2012, the Company comprehensively implemented the *Six Year Knowledge Management Plan* to further develop knowledge management from four dimensions including "sharing culture, organization system, innovation mechanism, and information platform". The knowledge management information platform realized the coverage of the whole carbon steel system of the Company. It also made a series of management rules including *Methods for Technology Knowledge Management* and so on. A Knowledge Management Committee was established in the Company, completing the transition from knowledge management initiation to regular operation.

R & D Investment Rate (%)



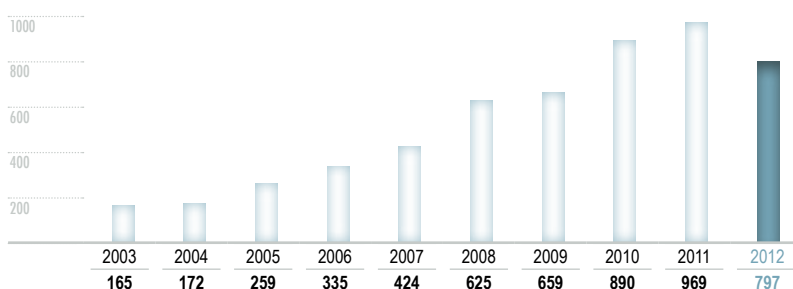
Number of Patent Applications



"Jiangsu Province Tinplate Engineering Technology Research Center" of Meishan Steel was Approved

The project will construct R & D testing lab, engineer-based development platform, central testing plant, and other related labs. During the construction, Meishan Steel will adhere to the guiding principle of "green, thinner, and premium products," and build Meishan steel into an important green metal packaging material supplier in China and even in the world through the following endeavors: speeding up in improving the tinplate quality and making it thinner; conducting clean production workmanship research and cost reduction by find substitute for tin, performing independent integration to expand the overall capacity of tinplates, establishing advanced and reasonable consistency quality support system, and forming core technology and transfer competence in main areas.

Number of Patents Authorized



In 2012, the R & D investment rate, and the new product sales rate reached 2.13% and 19.91% respectively. The patent application reached 1126, among which, 45.2% are patents of invention. The increased business benefits directly generated by research totaled CNY 1.551 billion, the business benefits brought by technological promotion totaled CNY 0.111 billion, and the contracted amount of technological trading totaled CNY 24.77 million.

Baosteel became the first manufacturing enterprises to have been honored with Asia MAKE most admired knowledge enterprise award in China. "Development and Industrialization of Low Temperature High Magnetic Induction Grain-oriented Silicon Steel Manufacturing Technology" was awarded China Metallurgical Science and Technology grand prize, and "Advanced High-strength Thin Strip Flexible Manufacturing Technology and Equipment" won the second prize of National Science and Technology Invention Award.

Improving the framework of technological innovation system. The company continuously perfected the customer-centered technological management system. Oriented toward the market, the company put emphasis on the application of technological innovation in product management and the division of tasks. According to the overall technological innovation strategy, and the dynamic needs of the market and the site, the company took various measures, such as direct the company orders and departments' applications, to position and implement the resource allocation of major projects to ensure the orderly progress of major research projects. For the development of products urgently needed by the market, the project management flow was optimized and green passages were established to speed up the resource allocation, task distribution and production organization.

Furthering technological innovation to sustain environmental management. Attaching great importance to the concept of environmental management, the company integrated technological innovation into environment management and formed a clear idea of technology-driven environmental management. The green product environmental performance BPEI (Baosteel Product Environmental Index) research was completed in 2012, forming a definition of the green product both qualitatively and quantitatively. The *Technique Norm for Steel Product Production Cycle Assessment LCA (Product Category Rule)* national standards for steel industry was finalized and submitted to the national Standardization Administration for approval. The company also worked together with downstream users to design the material selection plans. The "green steel for air conditioners" made important progress. The "research and practice of green procurement" completed the LCA pilot research of wearing resistant and auxiliary materials, providing support to the green procurement decision-making.

Continuously Promoting Technical Integration. Based on the technical integration projects, it systematically sorted out the knowledge products around the company's core technical chain and moved from the technical integration of products and techniques to the areas of digitalized modular and management. In terms of product technology, it completed the technical integration of eight products including high strength IF (super low carbon steel) steel consistent manufacturing technology, the consistent manufacturing technology for high strength continuous hot-rolled steel plates for porcelain enamel, electromagnetic pure iron, and magnetic pole steel for water turbine generators, and so on. In terms of craft technology, it finished 21 integration projects centering around the environmental protection, iron and steel making, as well as hot and cold rolling, including steel industry waste water physical-chemical treatment and reuse technology, material management technology, Baosteel BRP technology, and thickness control in cold rolling. In terms of the digital modular and management, in line with the company's digital modular work and the enhancement of basic management capability, it designed and implemented five projects including modular control and workmanship optimization for secondary cooling steel making, optimization modular and its supporting tool technology for rolling planning arrangement, and outstanding site management cases and so on.

Actively conducting technical trade to raise Baosteel's brand influence. Adhering to the concept of energy saving and environmental protection, it promoted Baosteel's steel slag treatment technology. In the year, with the jointed efforts, Baosteel's steel slag treatment equipment introduced to Puxiang Guangyang Steel Plant, Handan Steel and Jiuquan Steel were smoothly put into stable operation. In the meantime, collaborating with Baosteel Engineering and Technology Group, the company planned and held the "Baosteel Steel Making Technology Promotion" and mainly introduced Baosteel's technologies of slag treatment, blowing slag separating, and steel making automatic control, gaining recognition from potential customers. Using the engineering-based platform, the company signed with units related with Baosteel Engineering and Technology Group such agreements as technical cooperation in "fire resistant material for steel making," "electromagnetic metallurgy technology," and "overall induction heating system and the controlling technology for large-scale bearing rollers".

Furthering the Implementation of Intellectual Property (IP) Strategy

Enhancing the IP management. In 2012, the company continuously improved and optimized the IP appraisal and incentive mechanism, giving more emphasis to the connotation of innovation, and increasing the weight of outstanding patent inventions in the appraisal. It also adopted a rewarding system to recognize the outstanding inventors who have made special contribution to the company, so as to fully exert the guiding effect of IP appraisal and incentive. This would in turn raise the patent quality and enlarge the contribution of IP to the company's operation. In the year, 1126 patent applications were filed, 45.2% of which are invention patents, reaching a record high.

Compiling a new round of IP planning. In line with the global operation strategy and technological innovation planning, and focusing on the seven major products and nine critical technologies, the company carried out an overall planning of IP creation, initiation and protection strategies. The planning contains careful thoughts regarding the overall, long-term, and fundamental issues of IP layout. It is expected to form a virtuous circle starting from technological innovation to IP formation and to market operation, and thus raise Baosteel's influence on the international stage.

Speeding up the international IP strategic layout. In 2012, in line with Baosteel's internationalization steps, the company pushed forward its overseas IP layout. The management modular of international patent information system and the follow-up modular for the company's key breakthrough technologies were built to dynamically track the project progress. It also carried out analysis of foreign counterparts' patent structure, exploring the feasibility of technology patent application. According to the needs in overseas marketing expanding for specific products and technologies, overseas patent designs were made in a timely manner. In the year, 69 PCT (Patent Cooperation Treaty) international applications were filed, with 39 authorized, covering 17 countries.

Domain-based technology IP design. It formed IP protection for "patent groups" for these fields including central testing units, carbon steel products, slag treatment, and suspending kiln technology. It also filed trademark applications for self-developed products such as the third generation of advanced high strength steel. The company deepened the IP design pattern for district integration technologies. Relying on the BeS platform, it advanced the modular building for "district integration technology", sorting out the current patents and know-how and formed 43 integration technology including "Guide for energy conservation in hot production".

Innovative Development

Furthering the Construction of Knowledge-Based Enterprise
Furthering the Implementation of Intellectual Property (IP) Strategy
▶ Deepening the Industry-Academy-Research Cooperation
▶ Speeding Up the Technology R & D of New Products

Deepening the Industry-Academy-Research Cooperation

Started a new round of R & D cooperation design to deepen the industry-academy-research cooperation. Adhering to the principle of "supplementing each other, pursuing mutual benefit and actual effect, sharing both profit and risks, and realizing common mutual development," Baosteel solidified its research project-based cooperation pattern to meet Baosteel's needs in development. In March and June, 2012, the company signed respectively with Northeast University and Anhui Industrial University the agreements of a new round of cooperation. This has effectively promoted the transformation of research results into production power, laying a solid foundation for major technology innovation and breakthrough.

Optimizing the management platform of international technological cooperation, and pressing ahead the cooperation. To meet the needs of Company's technological innovation and optimize the international technological cooperation platform, the company built in 2012 the on-line management platform for international cooperation, and the platform has been put into operation for standardized and systematic management. In 2012, centering on the technological innovation for new products, new techniques, and new equipment, the company launched cooperation with Oxford University, British Welding Institute, Italy Metal Institute, and Canada C-FER Company, covering such areas as energy and environmental protection, material development, surface technology and metallurgical crafts. The cooperation has been effective in promoting innovation and expanding knowledge.

Speeding Up the Technology R & D of New Products

The third generation of high strength quenching and partitioning (QP) steel, 980MPa grade cold-rolled plates realized a 260-ton small-batch supply, and the products were well received by users, making Baosteel the first of its kind in the world to realized the batch supply of the new generation economic and high formability high strength steel (the third generation high strength steel).

The new generation high silicon high grade oriented silicon steel series formed production capability. B27R085 was successfully used in the 500kV power-raising transformer for the underground power station of the Three Gorges Dam. The new types of high efficiency non-oriented silicon steel B50AE-1, and B50AE-2 formed batch production capacity and entered the industrial engine market.

It developed, for the first time in the world, the martensitic stainless steel oil well drilling rod ($\phi 101.6 \times 14.8\text{mm}$) and the largest domestic oil casing pipe ($\phi 206.38 \times 16\text{mm}$). It was the only one in China to have realized the super 13Cr stable batch supply capacity covering the whole range of products from oil pipes to oil casing pipes and to oil well drilling rods.

It was the first company in China to have successfully developed and realized the batch application of 960MPa grade hot-rolled high strength steel. It made breakthrough in dealing with such issues as the plate shape and the quality uniformity of the super-high strength steel plate and greatly enhanced the quality uniformity and plate shape. The product quality is close to the world advanced level.

It made the first industrial pilot manufacturing of the cold-rolled super-low carbon high oxygen enamel steel, which passed the experimental authentication of several users, and was in small batch supply to desulfuration, denitration enamel heat transfer components. The comparatively high resilience super-low carbon titanium steel DC06EK realized batch supply.

It completed the development of the technology system for hot tin bottom slag tumbling treatment and successfully applied the technology to production, realizing the goal of tumbling treatment for all steel making slag, and solving a series of critical technical problems regarding the tin bottom slag treatment. This technology has effectively helped to reduce pollution in the steel making area.

The first domestic sintering gas recycle central testing installation was built and put into operation, filling the blank of the residue heat utilization in sintering. This is effective in reducing procedure energy consumption, and reducing the emission of waste gas and poisonous pollutants. Also, it can effectively reuse the residue heat in the gas.

The company independently conducted researches and formed critical core technologies in double stands leveling unit, mathematical models, plate shape control, extension rate control, computer system integrated design for process control and equipment parameter computing. It also solved some difficult questions regarding the super-thin steel strip single and double stand leveling technique and equipment technology, filling the blank of these fields in China.

It successfully made the plate continuous casting crystallizer magnetic agitating device and applied it to the No. 2 continuous casting unit of the steel making plant of Baosteel Co., Ltd. Through contrast and testing, it is found that all major technical indicators of this device are better than the original imported one. The magnet-leaking rate around the crystallizer is much lower than that of the imported one, with a power saving rate reaching 13.3%.

Cooperative Research

New Generation High Energy Saving Efficient Continuous Heat Treatment Key Technology Research and Demonstration

This is a technology support project of national "Twelfth Five-year" plan supervised by China Iron and Steel Association, organized by Baosteel, and participated by University of Science and Technology Beijing, Northeastern University, and Shanghai Jiaotong University. It was launched on March 29th, 2012. The objectives of the research include: forming independent IP for continuous heat treatment technology, capacity of independent unit designing and constructing, and finding solutions for common issues in steel production such as speedy heating and cooling of cold-rolled thin plates, plate online measuring and controlling, use of waste gas and residue heat from the low-temperature combustion realized with efficient heat-exchange installation, efficient steel strip washing, recycle of rinsing water, and utilization of wastes from cold rolling processes. It will also promote the application of the above-mentioned technologies and equipment to large-scale heat treatment units in China. The research project is to develop technologies with independent IP in speedy heat treatment, and hot-rolled non-pickling directly cold-rolled annealing hot galvanizing, establish a special production line with an annual throughput of 300,000 tons of high strength steel products so as to meet the demands on high strength steel products from the industries of auto, transportation and advanced manufacturing, as well as to enhance China's production technology and equipment for "double high" cold rolling and coating products in the industry.

Cooperative Research

Baosteel Thin Steel Strip Continuous Casting Industrialization Key Technology Research

This is a key project of Shanghai Science and Technology Support. It is organized by Baosteel Research Institute, and jointly participated by Baosteel Engineering, Baosight Software, Shanghai Jiaotong University, and Shanghai University. In 2012, the project passed the experts' appraisal and entered its industrialization stage. This project enables the birth of 110 patent applications, 62 of which were authorized, and 58 enterprise know-how applications.

08

Academic and Technical Exchange

Wide Exchange with its Counterparts
Support to the World Steel Association



Visiting VDEh Experiment Center



Taking part in American Iron and Steel Conference (AIST)

Academic and technical exchange is an important part of Baosteel's innovation. Baosteel has always been attaching great importance to it and participating actively in various exchange activities. By going out to meet others and inviting them to come to Baosteel, various exchange activities have been successfully carried out in 2012, including exchange within Baosteel Group, domestic and international exchange, as well as the regular annual exchange with Taiwan's China Steel. Baosteel has also been supporting and taking an active part in activities of the World Steel Association and the World Steel Association Forum.

Wide Exchange with its Counterparts

Exchange with Baosteel

The exchange with Baosteel has two major forms: research article exchange and the free exchange activities organized by societies and specialty committees affiliated to Baosteel Science and Technology Association (BSTA).

BSTA organized the research article selection activity once every year. In 2012, 218 articles were solicited, 1 of which won the first prize, 27 the second prize, and 56 the third prize. This activity effectively promoted the technical sharing and synergy among various production enterprises of the company.

All societies and special committees affiliated to BSTA organized exchange activities at different levels, playing an important role in enhancing the academic level of various fields. A case in point is that in the 2012 work conference, the iron making special committee conducted an in-depth discussion about establishing a platform for exchange and sharing based on the iron making process.

In 2012, Baosteel and Shanghai Society of Metals jointly established "Metallurgical Materials Special Committee," "Steel Making and Continuous Casting Special Committee," and "Tubes and Bars Special Committee", all attached to Shanghai Society of Metals, and carried out exchange regarding the domestic new-developed technologies such as magnetic continuous casting, pulse current and pulse magneto oscillation solidifying and crystallization.



Metallurgical Materials Special Committee of SHSM



Steel Making and Continuous Casting Special Committee of SHSM

Domestic Communication

Because there were many kinds of academic meetings and the effect of exchange were also varied, the company chose to take part in the major meetings, such as the meetings organized by China Metal Society, China Iron and Steel Association, Anshan Steel, and University of Science and Technology Beijing. The company organized 25 times of group participation in the meetings, and about 200 employees were involved.

In the iron making field, the "2012 National Conference on Iron Making Technology & Academic Annual Meeting of Iron Making" was themed on energy saving and emission reduction, and the efficient, secure and cost-effective production. Baosteel's furnace operation method has been proved the best way to save energy. The "Conference on Furnace Long Life Technology and High Wind Warm Wind Furnace Technology" organized by China Metal Society especially invited Baosteel to make a keynote report.

In the rolling field, Baosteel sent its chief researcher and chief engineer to participate in the "Conference on New TMCP equipment and technology of hot-rolled steel materials based on super-fast cooling," and "2012 national new metal material conference".

In the material field, Baosteel expert made a key-note speech titled "Baosteel Auto Steel Sheet Development" on the First Academic Annual Meeting of the Low Alloy Steel Sub Society of China Metal Society.

In the metal coating field, to push forward industrial technical progress, Baosteel Research Institute and Baosteel Metal Society jointly held "2012 National Coating Product Technology Conference" in the capacity of the sub society of metal coating of China Metal Society.

The major concerns of Baosteel, and also the main concerns China's Steel industry, are energy saving and emission reduction, technical innovation, and transformation and upgrading. In 2012, Baosteel organized groups to participate in various domestic meetings to exchange views regarding these issues with domestic peers and experts.

In the meantime, it also invited its domestic peers to come and exchange in Baosteel. From March 15th to 16th, Baosteel held "Conference on China Steel Enterprise Energy Saving Technology," inviting experts and scholars from Anshan Steel, Wuhan Steel, Shougang Jingtang Steel Plant, Taiyuan Steel, Jinan Steel, Ma Steel, Tangshan Steel, Anhui Steel, and China Iron & Steel Association, University of Science and Technology Beijing, and Northeastern University. The meeting talked about the application of energy saving technologies for the steel industry, and the solutions to meet the goal of the "Twelfth Five-Year" plan, and promoted the energy saving work of the steel industry. Representatives on the meeting introduced their practices and cases of energy saving, and carried out in-depth discussion regarding such issues as energy management contracting promotion, problems and solutions; ensuring the capital investment in energy saving project in this meager profit times; the relationship between equipment using efficiency and maintenance expense control, and dealing with the conflicts between new and renovated projects control and energy equipment maintenance.

In the year, the company also invited over 40 experts from the domestic power plants using Mitsubishi 350MW coal-fired power units to come to Baosteel Power Plant and took part in the three-day sixth production technology and management exchange meeting on Mitsubishi 350 MW coal-fired power units. Through the exchange, mutual progress was made among all participating parties in such areas as equipment management, operation, energy saving, indicator optimization and technical innovation.

Academic and Technical Exchange

Wide exchange with its counterparts
Support to the World Steel Association

International Exchange

In June, 2012, Baosteel sent a delegation to visit Swerea MEFOS, and conducted exchange in iron and steel making with such companies as SSAB, LKAB, OUTOKUMPU, and RUUKI. All parties expressed their wish to further cooperation, and had discussion regarding Baosteel's joining MEFOS.

In June, 2012, Baosteel delegation visited German Iron and Steel Institute (VDEh). After visiting its BFI experiment center, Baosteel discussed with VDEh the cooperation in steel making, rolling and testing.

The Company also organized group participation in academic meetings of international steel industry, such as American Iron and Steel Conference AIST and American Material Conference MST, Spring and Autumn Sessions of Japan Iron and Steel Society, International Conference on Zinc Coating, International Conference on Steel Hot Production Machinery, International Conference on Magnetic Metallurgy, International conference on Induction and Magnetic Materials, and so on.

Also in 2012, Baosteel and Siemens VAI Metals Technologies decided to set a "Baosteel-Siemens VAI Metals Technology Day," to invite technical experts of both parties to carry out technical exchange once in a year. This initiative is to enhance mutual exchange and mutual understanding, in the hope to find projects of mutual interest and to develop new cooperative modes. On December 5, the first technology day was held in Baosteel. Two parties had in-depth exchange in these areas: energy saving and environmental protection, rolling technology and quality, crafts and models and COREX.

In 2012, Baosteel also invited Schneider to hold its exhibition "Energy Efficiency China—Tour Exhibition of Industrial Automation" in Baosteel, to allow Baosteel site employees to closely experience Schneider Electric and gain a direct understanding of the energy optimized new products. This enhanced employees' understanding of energy saving and efficiency management, inviting them to apply the "green and energy saving" idea to their innovative production activities.



Welcome speech by Xu Lejiang, Chairman of Baosteel



Acknowledgment speech by Song Zhiyu, General Manager of China Steel

Exchange with Taiwan China Steel

From April 17th to 18th, 2012, the "Thirteenth Baosteel-China Steel Sci-tech Exchange Meeting" was held in Baosteel. A delegation of 19 members of Taiwan China Steel headed by General Manager Song Zhiyu, Xu Lejiang, Chairman of Baosteel and over 100 technical staff of Baosteel attended the activity. This meeting on technical development and management focused on three themes, namely R & D Management, quality consistency management and heavy plate technology.



At the Thirteenth Baosteel-China Steel Sci-tech Exchange Meeting

Support to the World Steel Association

Participating in Activities

In 2012, Baosteel organized 26 group participations in the meetings held by the World Steel Association.

Baosteel acts as the chair company of China 2020 Project affiliated to the economy committee of the World Steel Association, the chair company of clean air project affiliated to the environment committee, and the chair company of the excerpts of the sustainable project affiliated to the sustainable development committee.

In 2012, Baosteel's "LCA Excellent Cases" and "Direct Mineral Wool Production from the Hot Furnace Slag" won "Life Cycle Assessment Leading Award" and "Sustainable Report Achievement Award", respectively.

In addition to the previous participation in clean air, raw material improvement, sustainability report, energy benchmarking, equipment maintenance and critical indicators, Baosteel also participated, starting from 2012, in the nomination and research work headed by the World Steel Association in the NOx project, the mercury emission reduction project and the Livingsteel forum.

Dispatching Fellows

The Fellow program of the World Steel Association is to provide opportunities for employees of its member companies to work in its headquarters or other places. The fellows are usually engaged in certain projects or assigned certain positions, and would return to their companies after the dispatch term. Since 2005 to 2012, Baosteel has successively sent 11 fellows to the World Steel Association.

No.	Fellow	Term	Place	Organization
1	Yang Xiaoyu	2005.9~2006.2	Brussels, Belgium	World Steel Association
2	Chang Xinghui	2006.3~2006.9	Brussels, Belgium	Stainless Steel Forum, World Steel Association
3	Zhang Yizhong	2006.10~2007.4	Brussels, Belgium	Stainless Steel Forum, World Steel Association
4	Sun Quanshe	2008.1.7~2008.3.31 2008.4.1~2008.6.30	Brussels, Belgium Shanghai	Stainless Steel Forum, World Steel Association
5	Jiang Li	2007.6.15~2007.12.31 2008.1.7~2008.12.31	Beijing office Brussels, Belgium	World Steel Association
6	Liu Yinghao	2008.7.2~2008.12.31	Brussels, Belgium	World Steel Association
7	Yang Yiwen	2008.8.1~2008.12.31 2009.1.1~2009.3.31 2010.5.31~2010.12.2	Shanghai Brussels, Belgium Brussels, Belgium	World Steel Association Stainless Steel Forum, World Steel Association
8	Han Jian	2010.11.30~2011.6.2	Brussels, Belgium	Stainless Steel Forum, World Steel Association
9	Shen Yi	2011.8.15~2012.2.15	Brussels, Belgium	Stainless Steel Forum, World Steel Association
10	Chen Zhipeng	2012.2.1~3.31 2012.4.1~9.30	Beijing office Brussels, Belgium	World Steel Association
11	Yang Chunfang	2012.12.1~2013.5.30	Brussels, Belgium	Stainless Steel Forum, World Steel Association

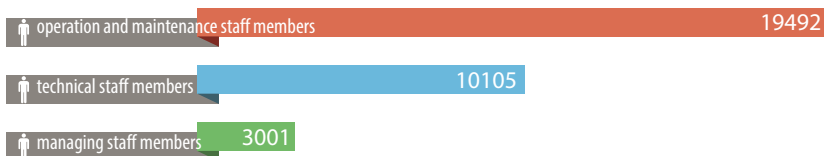
09

Harmonious Development

- ▶ Employee Profile
- ▶ Employees' Rights and Benefits
- ▶ Growth of Employee
- ▶ Employee Benefit and Social Security
- ▶ Occupational Health and Safety

Employee Profile

At the end of 2012, the company had 32,598 employees in total, of them, 19,492 are operation and maintenance staff members, 10,105 are technical staff members, and 3,001 are managing staff members.



There are 22,985 persons, or 70.5% of the employees, with an academic degree above associate degree.

6,728 persons, or 51.3% of the total of technical staff members and managing staff members have a title of technical post above mid-level.

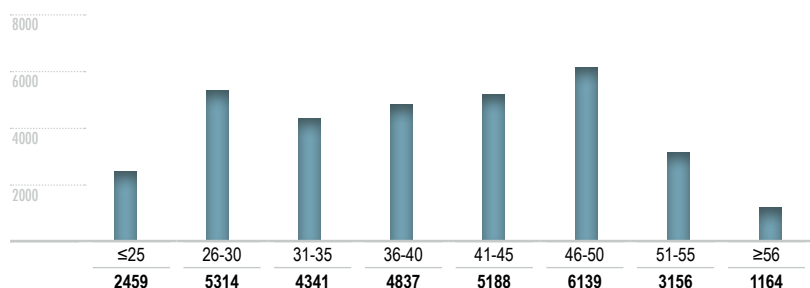
12,067 persons, or 61.9% of the operation and maintenance staff members, have a work certificate above advanced-worker level.

Employees of the Company are mainly from Shanghai, Jiangsu, Zhejiang, Shandong, Hubei and some overseas regions.

The company provides equal job opportunities to people disregard of their gender and age. Due to characteristics of the steel industry, the proportion of male and female employees was 6.8: 1. The Female employees mainly hold managing and technical business posts.

Our employees are young and vigorous. The age structure is rational, with the majority being under the age of 45, making up 67.9% of all employees.

Age Groups of the Employees (Persons)



In 2012, 557 employees resigned from the company, representing 1.7% of total employees. The company fully respects the personal choice of employees. Each resigning employee was interviewed individually to identify reasons for resignation, and resignation formalities were handled without delay for him or her.

Employees' Rights and Benefits

Employees' Rights and Benefits

The Company consistently set a good example in abiding by the *Employment Law*, the *Labor Contract Law*, the *Trade Union Law*, the *Social Insurance Law*, as well as other laws and regulations and in self-discipline. It respects the worker's right, cares for the works and protects the employee's benefits.

The Company implemented the employee labor contract system, collective contract system and employee congress system in earnest. Through improving the labor's union, the labor dispute mediation system, the supervision on labor laws, as well as the supervision and inspection of labor protection, the Company has brought the Employee Congress System to its full play which in turn help to maintain a stable and harmonious environment for the enterprise.

Adhering to the Principle of Equal Opportunity

The Company always adheres to the principle of "equal opportunity", offers equal pay to men and women for equal work, and promotes equal treatment in all policies and planning without any discrimination in respect of gender, age, race, religion and political orientation. In the mean time, people returning from overseas studies are encouraged to join Baosteel. Their information has been collected and specific attraction plans for high-level talents have been developed.

Care for Special Groups

The company pays particular attention to employees from ethnic minorities, who are granted additional allowances and, in some cases, appointed to take important posts.

The company pays due attention special groups. For example, the company gives consideration to the health needs of female employees by implementing policies on leave entitlements of female employees in pregnancy and lactation. Special subsidies are given to employees with special difficulties.

Harmonious Development

Employee Profile
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Growth of Employee

Continuous Improvement in Employee Skills

The company offers employees training opportunities to facilitate their skill building and career development. In 2012, 192,698 persons were trained in 3,277 programs. 94 hours of training was provided per capita. Years of education received by employees increased over years. By the end of the reporting period, employees received 15.1 years of education on average.

Focusing on the "Dark Blue Plan", and Enhancing the Global Vision

With the improved foreign language proficiency as the base, and the overseas study and transfer internship as the focus, the company carried out the "Dark Blue Plan" in an all-round way to cultivate international talents: launched a series of on-line courses for Baosteel internationalization, selected employees to take part in English training and to pursue full-time study, and selected a number of managerial staff and management reserve staff, as well as key technicians to go abroad for research, study, or internship.

Paying Close Attention to the "Technical Power" of Technical Staff, and Enforcing the Cultivation of Top-notch Comprehensive Talents

Centering on the abilities of innovating in technology, following the latest development, pursuing refined skills in the special area, and grasping the whole product flow, the company stepped up its efforts in platform construction and resource allocation. By starting with certain focal points, it aims at an overall technical improvement. Platforms were established to facilitate the understanding of the research frontier. For example, an activity featuring "Approaching the Masters" was carried out, inviting world-renowned experts and academicians of China to come and give lectures. It also set up platforms to enable the exchange of top technicians. The "Golden Apple Team Research and Study" program was designed and implemented for top technical staff from various departments to share and exchange regarding their specialties. A platform to enhance the synergic efforts in technical breakthrough was created, and a practice-based "TOP10 Theme Research and Study" program was designed and carried out to improve the long-flow synergy in solving key technical issues. The company also built platforms for the growth of comprehensive talents. Based on projects, and by means of two-way study, the company carried out its plan of cultivating "all-flow engineers" in an all-round way to raise its overall technical capacity.

Focusing on the Practical Ability and Improving the "Site Capability" of the Operation and Maintenance Staff

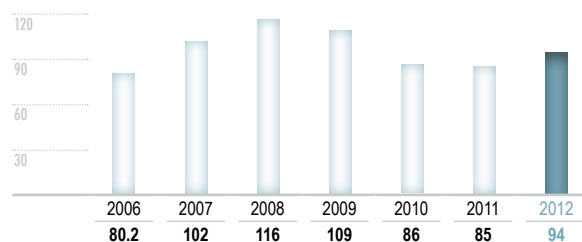
Based on the pilot program, the company carried out a large-scale "Technical Gym Plan" for the operation and maintenance staff. It also strengthened the top technical talent cultivation by conducting the second "Technical Master Training Camp". The "Team of Supervisor" was formed as a pilot program to enforcing the passing on of knowledge. The company also made active exploration in establishing a pilot guide system for employees' professional growth. "Core Learning Courses" and "Key Practice Activities" were systematically designed for various paths and levels.



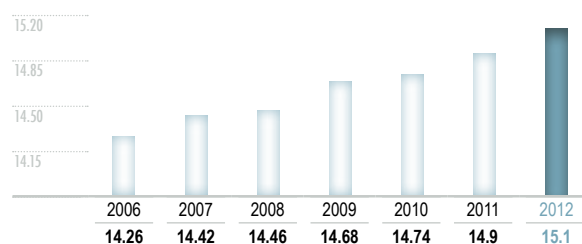
Laying Emphasis on the Transfer of the Learning Course, and Improving the Employees' Professional Quality

Based on the results already achieved in enhancing the professional capability, the company endeavors to form a course system to enhance the cluster professional capabilities. In 2012, a number of professional systems established qualification training systems, certification plans and professional talent cultivation modes to enhance the employees' professional capability.

Hours of Training Per Capita



Years of Education Per Capita



"Dark Blue Plan"

"Dark Blue Plan" contains four modular, namely, global awareness cultivation, global competence improvement, global vision expansion, and global spirit molding. Through the international capability enhancement program for staff at various levels, the company is pressing ahead with its global strategy.

Technical Master Training Camp

Centering on four modular including professional quality cultivation, TRIZ basic application, lectures by masters and practice, as well as expanding training and exchange, and with the systematic supervision from technical experts and professional teacher group, the company combined the group training and project-based practice to cultivate innovative and top-notch technical staff with unique skills.

Employee Benefit and Social Security

Providing Competitive Wages and Benefits

With the market level for payment as reference, and based on the internal position value, the company constructed a payment system that is "externally competitive and internally fair". This is to ensure the competitive edge of employee's payment in the industry and the region. Regular payment adjustment will also be made in accordance with employees' performance and capability enhancement. Employees are thus encouraged to fulfill their own value while creating value for the company. This effective connection between employees' earning and contribution can help attract and retain various talents for the company's strategic development and promote the harmonious development for the employee and the company.

Implementing the Performance-Oriented Payment-Incentive Policy

To effectively support the smooth realization of the operational goals, stress on the performance orientation of the payment incentive policy, and raise employees' awareness of the payment, the company established a rational budget management mechanism for the total volume of employee payment. This mechanism enables a balanced payment allocation pace in accordance with the completion of the company's operational goals. It lays emphasis on the process management of the total volume of employee payment, and requires follow-up of the actual distribution of the total payment volume of various units on a quarterly basis. In the meantime, the company further optimized its special award mechanism for its key tasks. In the headquarters of Baosteel Co., Ltd., the special award projects are standardized and simplified, clearly stating the distribution principle linking the special award with related work performance. It also concentrates all incentive resources, and emphasizes the timely and close linkage between the bonus distribution on the one hand, and the company's quarterly completion of its goals, the key task performance, as well as the personal performance on the other hand.

Well-Developed Insurance and Benefit System

The company performs corporate social responsibility and protects legitimate rights and benefits of employees according to the laws, pays social contributions at such time and in such amount as required, including basic pension insurance, medical insurance, unemployment insurance, work-related injury insurance, the maternity insurance and housing provident fund. In addition, the company also carried out corporate pension plan, supplementary housing reserve system, health insurance plan, regular physical checkup, free working lunch, and comprehensive insurance against accidents to address employees' concerns of retirement, resignation, hospital treatment, and accidents.

To meet the employees' needs for physical and spiritual health, the company issued in 2012 the "Implementing Regulations for the Supplementary Plan for Employee Health Insurance Plan," to further substantiate, on the basis of the all-employee health insurance plan already carried out, the contents of various insurance programs and to make dynamic adjustment to the point value and the rule for its use. As a result, diversified programs are offered, and employees can make personalized choice of services ranging from physical exercise, art appreciation, to health care and holiday recuperation.



Employees are entitled to take the days off as regulated by the state law and the company's rules. They also have the legal right for public holidays, paid annual leave, family visit vacation, and other holidays. When employees work overtime and on holidays, the payment would be made in accordance with the national and company rules.

Baosteel's Service Platform for "Good Life"

The platform abbreviated as "Good Life" (www.51hlife.com) was constructed for enterprise welfare management and service for Baosteel's enterprises, employees, and suppliers. It provides such services as self-defined welfare regulations, management and consumption analysis and activity organization for enterprises, flexible welfare products and convenient consumption modes for employees, and convenient product issuance and management as well as activity designing for suppliers.

Through the stable, inclusive and flexible tailored service, the "Good Life" gives an in-depth interpretation to the care of an enterprise. It also consolidates social resources, and makes good use of the advanced technology to provide an overall solution of "enterprise welfare consumption" that encompasses physical training, health examination, training, outdoor exploration, and art appreciation. It demonstrates humanistic concern of the enterprise, promotes the harmonious development of the enterprise and enhances the rallying force of the enterprise.

Harmonious Development

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► Occupational Health and Safety

Occupational Health and Safety

Sticking to the idea of "Safety first, zero accident, and zero violation," and with ensuring employees' health and safety as the fundamental point of departure, the four parities including the Party committee, the administration body, the Labor Union and the Youth League Committee worked jointly to enforce the implementation of safety responsibility at all levels. The company underwent the appraisal for the first grade metallurgical enterprise in standardization of the safety production, with 34 of its subordinate units all passing the on-site appraisal. It promoted the integration of safety management by sorting out and optimizing the management system, and conducting the process control. By inviting "everybody to find faults," the company carried out the examination of the effectiveness of the risk source control measures regarding all regulations for various posts. In line with its safety control requirements and seasonal characteristics, the company organized the special safety examination and diagnosis. It enforced the safety risk check by analyzing and remarking on the examination and remedy work. In view of the Baosteel's safety management mode, the company compiled *Baosteel Safety Management Practice*. Through special program training transfer, it strengthened the joint safety inspection on Thursdays, enhanced the practical safety control skill of the base level managerial staff, and promoted the safety management performance by the managerial staff and safety performance of the Company.

Pressing Ahead with the Safety Performance at the Base Level

The company further strengthened the function of "one post with double responsibilities" to improve the safety management awareness and skills of the sub plant directors and working team leaders. The company organized a number of theme study sessions, and compiled pertinent training materials and course slides in line with the features and safety management situation of Baosteel. Special training programs were carried out for sub plant directors and working team leaders. Since March 28, 2012, it organized training and examination for 1180 working team leaders from the company and related cooperative units by 12 installments. During the training, 385 persons were selected randomly from among the production working leaders, equipment working leaders and working leaders from related cooperative units to participate in either seminars or questionnaires, as a part of the efforts to adjust the training content and pattern to realize the best training effect.

To further strengthen the professional safety management team construction, and continuously enhance the skill and overall quality of the professional safety management staff, the company established the safety work staff training and evaluation mechanism. It designed the professional safety management staff training and examination plan, which served as a framework for the subordinate units to organize and conduct safety work staff skill evaluation. Through this training and evaluation, the professional skill of the safety work staff were improved and the weakness of safety work were pinned down, which also helped to clarify the goal for future improvement.

Carrying Out Deeply the Work Safety Standardization

In accordance with the overall deployment of carrying out deeply the work safety standardization put forward by the State Administration of Work Safety, the company took lead in the metallurgical industry to carry out the standardization work. Regarding the work safety standardization as an important gripping device for improving the fundamental safety level and ensuring safe production, and in line with the metallurgical professional appraisal criteria, the company actively solidified the basic management of work safety and pressed ahead with its efforts to ensure the overall qualification of the first grade enterprise for metallurgical enterprise work safety standardization. In 2012, the company organized the site appraisal of its 34 subordinate units for the first grade enterprise in metallurgical work safety standardization, with a 100% pass rate, making itself the first of its kind among the metallurgical industry to have passed the first grade appraisal. In the meantime, for the problems revealed during the standardization and appraisal process, the company urged related units and business management departments to carefully analyze the reasons so as to continuously perfect the system, enforce the treatment of site safety risks. These efforts have been effective in perfecting and solidifying the basic work safety management in Baosteel Co., Ltd.

Inviting Everyone to "Find Fault" about the Position Regulations, and Deepening the Safety Risk Control

Through analyzing the accidents in previous years, it was found that most of the accidents were caused by the lack of safety risk control in the position regulation or the lack of advisable work procedure regulation. In order to enhance the effectiveness of position regulations, the company invited everyone in the company to "find fault" with the position regulations, motivating all employees to sort out the risk resource control measures in the position regulations in line with their actual work. The purpose was to perfect the position regulation, making it simple, practical and easy to follow. Seizing this opportunity of "finding fault," it also carried out the safety investigation into the roll cleaning work safety regarding the production units of hot rolling, heavy plates, cold rolling, thin plates and silicon steel, special safety check for the belt conveyor work of the iron-making and steel-making units. It remarked on the issues found such as the lack of the particular position regulation, the discrepancy between the regulation and the actual work, as well as the failure of the regulation in meeting the safety requirement, which promoted the position regulation optimization of all units. Through this "fault finding" activity, it enhanced the basic safety management, whereas employees, through actively taking part in this work safety improvement, have bettered their understanding of the position regulation.



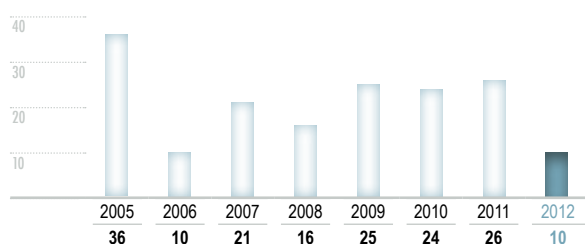
Stepping Up the Check and Remedy of Safety Risks

It stepped up the efforts in checking and curing the safety risks in terms of the scale of depth of the work. A work mechanism featuring the wide investigation into safety risks, implementing the close-circle renovation, and in-depth systematical analysis of the risks was formed. For the problems found, the company developed project-based plans to carry out multi-dimensional and in-depth analysis and renovation. From such dimensions as "man, machine, material, method, process, and system," and with the "5why" method, it conducted in-depth analysis of the problems to find out the fundamental reasons and flaws of management, pinning down the reasons and responsibilities for various levels, to promote the implementation of responsibilities and enhance the ability to draw inferences from one case. In addition, efforts were made to perfect the examination pattern featuring multi-level and multi-dimension check including "joint inspection, examination before holidays, special examination, special diagnosis, and daily examination". An examination framework has been formed, featuring inspection headed by the company leaders on the basic management, in-depth special diagnosis by professional safety work staff, and participation in the risk check by all employees. While pushing forward the safety management, special attention was given to the safety risks caused by the dangerous behaviors, and special efforts were made to enforce the close-circle and the in-depth analysis as well as management quality enhancement.

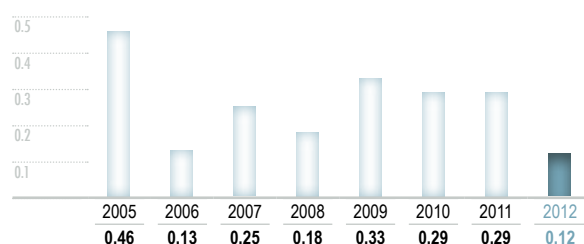
Strengthening the Admission and Site Supervision of Collaborative Safety Management

In view of the process change of the collaborative safety management, the company revised the "Methods of Collaborative Safety Management", clearly stating the collaborative safety admission requirements and the management requirements for the collaborative safety during procurement, operation and maintenance. It strengthened the admission management of the collaborative units and persons by issuing collaborative "Plant Area Safety Production Permission," and carrying out the special examination of the collaborative admission and safety education to enforce the management and supervision of site work admission for collaborative persons. With the deepening of Baosteel's collaborative business, the collaborative personnel have become an indispensable part for Baosteel's construction, production, as well as check and maintenance. In 2012, two cases of collaborative personnel injury involving a number of people occurred in Baosteel district.

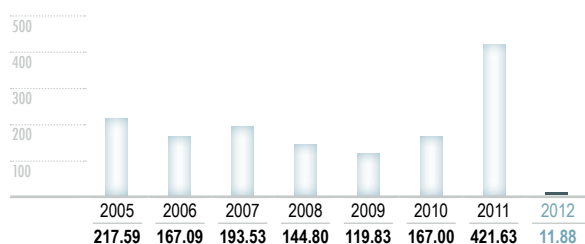
Number of Injuries (Person)



Frequency of Injuries (Number of injuries / Millions of man-hours)



Serious Injury Rate (Number of days away from work/ Millions of man-hours)



Safety Accidents:

On February 23, 2012, Baoye Nanjing Co., Ltd. (Baoye Corp.), which undertook the 80,000 m³ converting furnace gas tank repair and renovation project, saw a case of injury hurting a number of people.

On December 17, 2012, a major accident with serious injury happened to the No. 1 sub-plant of the steel making plant. The liquid steel spilled out, resulting in casualties and injuries of a number of people of the collaborative company.

After the accidents, the company had self-examination in order to learn the lesson, carried out safety risk check and tried to draw inferences from the cases. The company will continue to explore the safety management for strategic suppliers inside the company, looking into the possibilities of establishing cooperative mechanism for both parties to jointly design and conduct safety control so as to enhance the collaborative safety performance.

Note: The above statistics were based on the number of formal employees of Baosteel Co., Ltd. Since April 2012, the Stainless Steel business and Special Steel business was peeled off from Baosteel Co., Ltd. The indicators starting from April 2012 did not include the Stainless Steel business and Special Steel business.

Relying on Employees, Promoting Employees' Development and Caring for Employees

- ▶ Perfecting the Democratic Management System
- ▶ Solving the "Three Most" Problems for Employees
- ▶ Employee Quality Development

Sticking to the principle of "protecting employees' rights and benefits, promoting enterprise's development, and seeking for benefits on employees' behalf," and under the leadership of the company's Party Committee and superior Labor Union, and centering around the central tasks of the company's production and operation, the Company's Labor Union and continued to carry forward such work as the labor contest in cost reduction and efficiency enhancement, the mass-based economic technical innovation, and the labor protection supervision and check. It launched the activity of "Serving employees with action," paying close attention to employees' needs and coordinated the solution to the "Three Most" problems. It insisted on the open and democratic management of plant affairs, gave full play to the function of the comprehensive democratic management committee of the Workers' Congress, and guaranteed the following rights of the employees: right to know, and to participate, examination and approval right, and right to evaluate and supervise. It deepened the best practitioner activity, and promoted the independent employee team construction. Various entertainment activities were also organized to enrich the employees' daily life.

Perfecting the Democratic Management System

In 2012, the Company's Labor Union perfected the multi-level system of workers' congress and strengthened the open and democratic plant affair management. The following regulations were perfected: *Opinions on Establishing and Perfecting the Open Plant Affair Work Responsible System for Baoshan Iron and Steel Co., Ltd.*, *Methods of Responsibility Answering in the Open Plant Work for Baosteel Co., Ltd.*, and *Detailed Rules on the labor dispute mediation committee of Baoshan Iron and Steel*. The comprehensive management committee of Workers' Congress was established to perform democratic procedures of various proposals, with all proposals approved at a high support rate. It invited employee representatives to conduct democratic evaluation on the Company's leaders and the direct management staff, and safety performance evaluation on the managerial staff. It gave guidance to the newly founded base-level Labor Unions such as the one of Zhanjiang Steel, convened the "Two-Party Representatives' Meeting", perfected the organization system and conducted various democratic management work.

Caring Edu-Aid

The women employees in the steel making plant regard serving the society and taking parties in the caring donation as a social ethics. Since 2001, they have been participating in the caring edu-aid in the capacity of women employees' committee of the steel making plant, raising an accumulative amount of RMB 32,668 to help the children of Baosteel employees with difficulties. Currently, one child is receiving the help from them.



Representatives of the women employees' committee pay a visit to the child receiving the aid.

Solving the "Three Most" Problems for Employees

In 2012, the Company's Labor Union launched the theme activity of "Serving Employees with Action," requesting all full-time and part-time cadres of the Labor Union to come to the production teams and groups to have "face to face", and "heart to heart" communication with employees, and to give practical solutions to employees' needs. 640 full-time and part-time cadres made 6,923 times of visits to the teams and groups, interacting with 26,054 person times of employees, collecting 4,054 pieces of employees' demands, and answered employees' questions and gave feedback to them.

The Labor Union of the company listened to the employees' opinion and conducted site investigation. New projects were added timely to meet the on-site demands. The Labor Union helped push forward the implementation of 40 practical projects at the company's level, and gave guidance and coordination for the implementation of 65 projects at either the business units or the company's subsidiaries. It coordinated the functional departments to standardize the nine criteria for the logistic of the practical projects.

For the employees with difficulties, the company compiled "*Regulations on Helping the Employees with Difficulties and Sending Warmth*", and persisted in conducting the related work during the year and at festivals.

The company played an active role in helping the employees with difficulties. In 2012, 41,878 person times received help from the company, totaling RMB 20,545 million. 935 person times received major medical special help from the company, totaling RMB 4.72 billion. The company continued to carry out the "One-day Donation" activity, and collected RMB 1.12 million from employees, and the money was used for education assistance, and for helping the employees with difficulties.

Employee Quality Development

The company paid close attention to employees' growth at various positions, stepped up the cultivation of innovative talents, gave full play to the demonstration function of the "Innovation Salon," motivated the employees and created a generative atmosphere for employees to work creatively. In the year, 19 new innovative studios were added, and efforts were made to standardize the work and construction of the innovative studios. In the 111th Paris Invention Exhibition, the company harvested 2 golden awards and 2 silver awards, and in the 7th China International Invention Exhibition, 15 golden awards, 14 silver awards, and 20 brass awards.

The Labor Union explored a flexible welfare policy, and designed and implemented the "*Supplementary Plan for Employee Health Insurance Plan*," after a wide investigation and soliciting opinions. The supplementary plan added three aspects including "Art appreciation, health care, and holiday recuperation". After being approved at a 100% support rate by the Workers' Congress, this plan was put into practice as scheduled, and was well received by employees. About 210,000 person times enjoyed the programs, with a total consumption of RMB 11.85 million.

The Labor Unions at all levels of the company were actively organizing rich, healthy and happy activities for the employees. In the year, they organized 23 kinds of recreational and physical training courses, with a participation of 9,000 person times, 129 recreational and sports activities and contests were held, with a participation of 13,000 person times. The Labor Unions promoted the Baosteel culture, designed and organized theme activities for the Health Day of "happy family, happy life and happy work".

It continued to carry out the work for women employees in a vigorous way and with Baosteel characteristics. It organized the women employees to participate in the "March 8th Women's Day" performance, and various activities of "weekend school for women employees". It constructed a platform of "Women Employees' Contribution Contest" for women employees to show themselves.

"Finding Love at Xixia Mountain"

To better serve the youth and unite them, the Youth League of Meishan Steel and Nanjing TV station jointly held a youth exchange activity called Green Meishan Steel "Finding love at Xixia Mountain". Young men from Meishan Steel and young women from all lines of work in Nanjing participated in several rounds of activities including "Climbing the mountain summit together," "Showing myself," and "Love songs". The activity enabled the young people to make friends and find love in a relaxing atmosphere.



11

Investor Relation

- ▶ Actively Protecting the Company's Stock Price
- ▶ Attaching Importance to the Communication with Investors
- ▶ Actively Serving the Wide Range of Investors
- ▶ Reasonable and Sustainable Investment Return

Actively Protecting the Company's Stock Price

The company attaches great importance to the investors' interests, and has always been protective of shareholders' interests. Since the shareholding increase by Baosteel Group in the second half of 2011, the company, after an overall consideration of the investors' suggestion and its own capital and financial situation, held an interim Shareholders' Meeting in September, 2012 and passed the proposal of stock repurchase, buying back the company's stock at a price not over 5 RMB per share with the total amount within RMB 5 billion. At the end of 2012, the company's stock was closed at 4.89 RMB/share, 20% higher than the price of 4.07 RMB/share before this repurchase announcement. The repurchase expenditure totaled RMB 1.92 billion, and 0.414 billion of shares were repurchased, taking up 2.4% of the original total capital stock.

Attaching Importance to the Communication with Investors

The company also paid great attention to the interactive exchange with investors. In 2012, it had received a total of 293 person times of domestic and foreign fund managers and securities analysts in 75 batches to come for research investigation. The company had also arranged for 22 batches of investors to visit the factory areas, and hosted 19 teleconferences. Upon invitation, the company had attended 6 large-scale investor exchange meetings hosted by such investment bodies as UBS, CLSA, Standard Chartered Bank, Mogan Stanley, Shenyin & Wanguo Securities, and China Merchants Securities. Through keynote speeches, panel meetings and one-to-one communication, the company had in-depth exchange with domestic and foreign investors on such areas as the macro-economic situation, the industry prospect and the company's operation.

In the meantime, after the issuance of regular performance reports, the company held 4 online performance explanation meetings, 2 on-site performance explanation meetings by analysts, and 3 teleconferences by overseas analysts, to facilitate the multi-channel communication with various types of investors. The managerial staff of the company took a part in the above IR activities to gain a deep understanding of the capital market, and the suggestion and needs of investors.



Actively Serving the Wide Range of Investors

The company continued to conduct the IR service investigation by questionnaires to investors to collect feedback on its IR Services for IR management optimization.

In October 2012, the company held the "Investor Reception Day" activity, taking the forms of a meeting with individual shareholders and a visit of the factory. This activity was an opportunity to showcase the company's image and to enhance shareholders' understanding of the company.



In Investor Reception Day

To further enhance the service of the IR website. On the basis of a timely update of all modular and a guarantee of the timely and effective information relay, the third-party IR web tools were introduced to provide such services as dynamic stock price comparison, historical stock price search, and calculation of investment gains. This has made the online services more intelligent and more human-oriented.

Reasonable and Sustainable Investment Return

The company is committed to creating value for the investors by sticking to the dividend policy and fully considering the investors' needs for dividend distribution. The company passed the proposal about cash dividend distribution policy in its 2004 Shareholders' Meeting, clearly stating that the annual cash dividend should not be less than 40% of the annual net profit. This commitment enables the investors to have a stable expectation and ensures the steady investment returns. Since December 2000 when the company was first listed to December 31, 2012, the company's accumulated cash dividends reached RMB 46.696 billion.

Bulk Raw Material Procurement

- ▶ Pursuing Mutual Benefits, Shouldering Risks and Seeking Common Development
- ▶ Supplier Environmental Management System Certification
- ▶ Green Procurement
- ▶ Sunshine Procurement

In 2012, prices for fuel and raw materials showed a trend of fall by levels. From the first to the third quarter, prices for bulk fuel and raw materials dropped by levels, which bounced back slightly in the fourth quarter. In view of the new situation and changes of the steel raw material market, the company stuck to the rule of securing the stable long-term fuel and raw material supply and deeply promoted the win-win cooperation with strategic suppliers. Adhering to the principle of pursuing mutual benefits, shouldering risks, and seeking common development, it continually deepened the supplier management.

Pursuing Mutual Benefits, Shouldering Risks and Seeking Common Development

The changes of the fuel and raw material market meant new requirements on the 2012 procurement of fuel and raw materials. Centering on the three goals—"securing supply, lowering cost, and optimizing service"—set in the year beginning, the raw material procurement center adjusted itself to the market change and made flexible shift. While guaranteeing the fuel and raw material supply, it moved the center of this work to lowering the raw material cost, control the raw material inventory, and raise its service quality. Through such measures as the all-caliber inventory control, coal price reduction after negotiation, and logistic pattern optimization, it decreased the procurement cost effectively, reduced the inventory capital use, and thus contributed to the company's best performance in the industry. In view of the new situation and changes of the steel raw material market, the company stuck to the rule of securing the stable long-term fuel and raw material supply and deeply promoted the win-win cooperation with strategic suppliers. Adhering to the principle of pursuing mutual benefits, shouldering risks, and seeking common development, it continually deepened the supplier management.

Supplier Environmental Management System Certification

The fuel and raw material procurement center of Baoshan Iron and Steel had 395 qualified suppliers at the end of 2012, and 50 suppliers who had passed the environmental management certification. It continued to urge the suppliers to go through the ISO 14001 certification. When looking for new suppliers, priority was given to those certified for environmental management. In 2012, 13% of the suppliers held the certification of ISO 14001. As for the carriers, the company chose to work with those who had passed the ISM/NSM certification. In the year, 100% of the carriers used by the company have passed the ISM/NSM certification.



Green Procurement

Green procurement is an important part of Baosteel's environmental management. It plays an important role in Baosteel's sustainable development. In the meantime, it will also promote the upgrading of suppliers' comprehensive ability, and hence cultivate green partners, reflecting Baosteel's social responsibility. In order to implement the environmental management strategy and requirement on green procurement put forward by the management of the company, it added to the raw material purchase contract the company's management guideline (building the internationally competitive steel enterprise via customer-centered management, pollutant reduction and hazard control, energy saving and emission reduction, risk management, improvement and innovation, efficient lean operation, and harmonious development.), and put forward clear requirements of environment protection for suppliers ("Baosteel is concerned with the supplier's performance in such areas as environmental management system, clean production, and social responsibility. It endeavors to enforce the communication and information exchange with suppliers to build the green supply chain together with supplies.")

To further its green procurement, the procurement center of Baosteel Co., Ltd. adhered to its Green Declaration, and made an active move in iron alloy procurement. Qinghai Wutong Group Corp. is a representative company of Baosteel's supplier of iron alloy, a leader in carrying forward Baosteel's idea of green operation. Its successful environmental operation performance and social effect has been motivating other iron alloy suppliers of Baosteel to continuously enhance their capability of environmental operation, and thus helps the extension of the raw material green supply chain of the steel industry.

Sunshine Procurement

In 2012, the company further improved its internal management flow and the authorization system to facilitate the further development of "Sunshine procurement" according to the "standardized and transparent" procurement and supply flow. Efforts were made to the probity risk identification and prevention regarding sensitive positions to promote a team of integrity. The digital platform for raw material procurement was further improved, and suppliers were encouraged to enhance their on-line coordination. The e-commerce business platform added a new function of self-help invoice recording on-line by the suppliers. These measures have effectively raised the productivity.

The handbook for categorized procurement strategy compiled in 2012 optimized the pricing strategies to include competitive and non-competitive ones. The handbook also added the guiding strategy for cooperation with suppliers and resource exploration plans. The overall principle is to minimize the ratio of non-competitive pricing strategy as much as possible, so as to enable the market mechanism in resource allocation and to control the procurement cost.

13

Procurement of Materials and Spare Parts

- ▶ Supplier Management
- ▶ E-commerce
- ▶ Management of Idle and Waste Assets
- ▶ Green Procurement

Supplier Management

Communication and Cooperation with Suppliers

In May 2012, the “Baosteel Group—Sinopec Exchange on Cooperation Regarding the Quality of Lubricants” was held. In the meeting, the material and spare part procurement and the equipment departments discussed with the lubricant company of Sinopec about their cooperation in green procurement of lubricants for the Steel industry. The meeting arrived at the decision that collaborative efforts will be made to improve the lubricating technology for steel equipment by focusing on such areas as the localization of imported oils, equipment lubricating technology, friction and wear, and oil monitoring.

In November 2012, the 2012 Roll Management Seminar of Baosteel Co., Ltd. was held to explore the theme “High quality, low cost, and promoting the supply-demand innovation”. Participants from the roll users and the roll suppliers made presentations and panel discussions were held. The meeting finalized the future development and concrete work to be done in such areas as continuously perfecting the roll evaluation system, promoting the idea that “what really suits is the best,” strengthening the mechanism innovation, and promoting the application of new technology and new products.

Procurement from Medium-Small Enterprises and From Local Suppliers

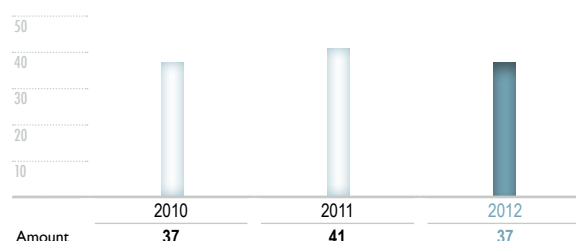
According to the *Criteria for Medium-Small Enterprise Categorization* (MIITE [2011]300), enterprises with registration capital less than CNY10 million (foreign currency should be exchanged to CNY) are defined as medium-small suppliers. The following is the chart of material procurement from medium-small enterprises (excluding import) by the headquarters of Baosteel Co., Ltd.

The production enterprises registered in Shanghai are local suppliers (excluding trading companies, agencies, or foreign companies in China). The following is chart of material procurement from local enterprises by the headquarters of Baosteel Co., Ltd.

Jointing Hands in Value Creation, Building a Green Supply Chain

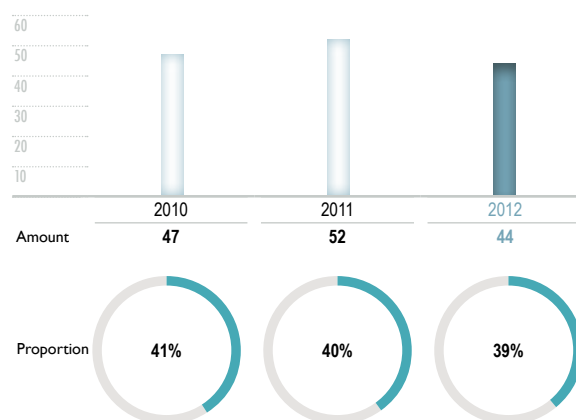
Since establishing the joint construction relationship with the Party Committee of Tianjin branch of Sinopec Lubricant Company in 2009, the company's material and spare part procurement department explored deeply in such areas as technical and management exchange, production-supply-research synergic mechanism construction, project cooperation, probity and integrity and Party construction. Moderate progresses have been achieved in management optimization, business efficiency, as well as cost reduction and efficiency enhancing. In view of the market situation and the changed operational environment, the two parties signed a new round of joint construction, pinning down the focus of the joint construction. In terms of building the jointly value-creation supply chain, efforts will be made based on the production-supply-research synergic construction projects. For example, through the key project of oil grease for stainless steel continuous casting, they'll work cooperatively to further reduce consumption and improve cost. Through the key project of oil grease for heavy plates, they'll continue to increase the use life of products, enforce technical service, and form a win-win mode of a virtuous circle.

Chart of Materials and Spare Parts Procurement from Medium-Small Enterprises by the Headquarters of Baosteel Co., Ltd. (Amount: CNY 100 Million)



Note: There amounts of procurement from small and medium enterprises by Baosteel Co., Ltd. in 2010 and 2011 listed here are different from those listed in the 2011 Stability Report, due to the different statistical method used in 2012 as regards the number of small and medium enterprises. In this report, the branches and sales companies of some large-scale enterprises, and those defined as small and medium enterprises but are involved in buying imported materials and spare parts are not included in the calculation of small and medium enterprises.

Chart of Materials and Spare Parts Procurement from Local Enterprises by the Headquarters of Baosteel Co., Ltd. (Amount: CNY 100 Million)



E-commerce

The company has been committed to building a high efficiency supply chain that enables the mutual development of the company and suppliers. To enhance the on-line synergy of both parties, the company established a well-functioned e-commerce platform, set up an efficient and convenient supplier synergy system as well as smooth and professional procurement service hotlines. By the end of 2012, the order synergy ratio reached 98.9%, the e-contract ration 77%, and the e-invoice collection ratio 73%. This is not only greatly enhanced the synergy efficiency but also cut off the paper and energy consumption.

Management of Idle and Waste Assets

In 2012, the headquarters of Baosteel Co., Ltd. recollected 189,000 tons of idle and waste materials, including 6944 tons of zinc slag and tin sludge, 471 tons of waste oil. In terms of the recycle management, it promoted the method of inviting the original supplier to collect the tin sludge to reduce the secondary environmental pollution by simplifying the circulation. Efforts were also made to refine the waste treatment by categorizing the waste materials in recollection.

Procurement of Materials and Spare Parts

Supplier Management
E-commerce
Management of Idle and Waste Assets
▶ Green Procurement

Green Procurement

The Issuance of Handbook for Green Procurement (1st version) by Baosteel has effectively pushed forward the company's procurement work. In the meantime, it has also urged the suppliers to improve management and fulfill their social responsibility of energy saving and environmental protection.

Environmental Management System Certification for Suppliers

The passed three years saw a steady increase in the pass rate of environmental management certification by the material and spare part suppliers of the headquarters of Baosteel Co., Ltd. By the end of 2012, the headquarters has 979 eligible material and spare part suppliers, 365 of which have passed the Environmental Management System Certification, and the capital settlement with which accounts for 64.9% of the total amount.

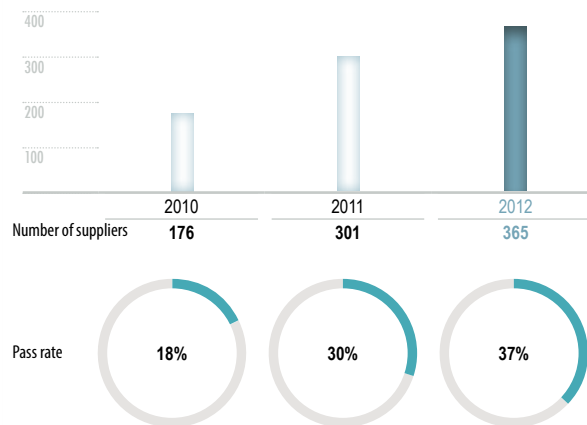
Helping the Small and Medium Suppliers Build Production Life Cycle Assessment (LCA)

In 2012, two enterprises, one in producing fire-resistant material and the other in producing auxiliary material for metallurgy, were selected by the company as pilot enterprises for the product environmental performance analysis. The company guided the two enterprises to conduct energy saving and emission reduction analysis and pointed out the potential points for further improvement on this aspect. This is an effort made by the company to sustain its green procurement. The pilot program provided a green solution to Baosteel regarding the procurement from the pilot enterprises, and promoted the environmental performance enhancement of the suppliers.

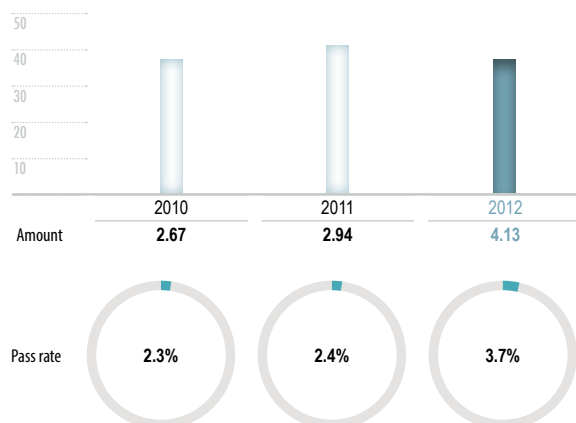
Green Object Procurement

The company has completed the green property recognition of more than 150,000 spare parts (about 100,000 ones at the end of 2011), or 46% of the total spare parts of Baosteel Co., Ltd. The following chart shows the green objects (already recognized) in the past three years.

Environmental Management System Certification for the Material and Spare Part Suppliers of the Headquarters of Baosteel Co., Ltd.



Green Procurement for the Material and Spare Part Suppliers of the Headquarters of Baosteel Co., Ltd. (Amount: CNY 100 Million)



Anecdotes about Green Procurement

The Popularization of High Efficiency Motor Triggered by the a Business Enquiry

In 2011, the company made enquiries about motors from foreign suppliers, who refused to supply the motors since they were concerned that their products hadn't China's product efficiency certification. This case triggered a series of responses in Baosteel. Such a question was raised by Baosteel people: Is this the time for Baosteel to take the lead in upgrading the motors to high efficiency ones and thus contribute to China's agenda of energy saving and environmental protection? With this question in mind, Baosteel carried out cost analysis and high efficiency motor supplier seminars, and finalized an advisable plan for popularizing the high efficiency motors after a series of optimization. Baosteel sorted out all motor equipment that should be upgraded and completed the upgrade by stages.

"Green" Water Treatment Easing the Employees' Tension

The water treatment agent used by the UOE production site of the Steel Tube business unit used to be relied on import. The agent needed to be changed 2 to 3 times per month, posing high pressure on the operational cost and environmental protection. To reduce the agent consumption for each ton of water and to explore more efficient and cost effective green supply pattern, the company formed a water treatment agent procurement team. The team investigated the agent suppliers, conducted lab and site experiment about the agents, and succeeded in finding a new agent that needs substitution once only in a month, reducing the cost to 30% of the previous one. More important, the water quality has been greatly improved. This has effectively in lowering the procurement cost and the impact on the environment.

Reshaping the Green Concept with New Tools

In 2012, the company was looking at the possibility of applying LCA to product procurement.

Refractory material is an important auxiliary material for metallurgy. The procurement staff, suppliers, staff of the production site and staff of the research institute worked jointly in examining the whole process regarding the refractory material including the raw material, production, finished products, use, and disuse. They looked at the water, electricity and other consumption medium, as well as the data of emissions. After the collection, sorting out, and making comparative analysis on different materials and processes, results were made to give reliable "green" guidance for the procurement staff in selection suppliers. The qualitative comparison of the functional and environmental performance of different refractory and auxiliary materials enriched the connotation of price-performance ratio in procurement.

14

Product Marketing

- ▶ Green Marketing
- ▶ Environmentally Friendly Products and Production Process
- ▶ Client Service
- ▶ Clients' Satisfaction

Green Marketing

In 2012, it was a year when Baosteel built upon its inner strength of green product marketing. It was also a year of carrying forward the "Green Declaration" and making systematical planning. Internally, Baosteel perfected its key procedure and system for green marketing focusing on environmental operation, actively carried out all kinds of green certification, set up a goal system of green product operation and continued to press ahead with the goal. Outwardly, it explored the cooperative mode of providing industrial representative users with green solutions by using the LCA as the point of departure and focusing on "quality, cost, and environmental performance".



Environmentally Friendly Products and Production Process

High strength steel for automobile. Baosteel and the automotive industry users formed a strategic ally of technical creation in automotive lightening to commit itself to the long-term research on a series of high strength steel and to providing the automotive users with a series of solutions for automobile body steel. The first generation of Baosteel AHSS steel realized stable supply, the second generation AHSS steel entered sample production, and the third generation advanced high strength steel 980MPa QP steel realized its international debut. Baosteel's national key lab for automotive steel passed the appraisal and acceptance check by experts organized by the Ministry of Science and Technology.

New high efficiency non-oriented silicon steel. The new high efficiency non-oriented silicon steel originates but differs from the AH high efficiency series of products, and is a feature product of the company. The issuance of "GB 18613:2012", and the new national standard for air conditioners posed unprecedented challenges and opportunities for the motor and steel industries. To meet the motor industry's needs in terms of cost, Baosteel furthered its research based on the AH series of products, and developed exclusively the high efficiency AE series of products. Through optimizing the metallurgical components and the production process, the products have better functional performance, with lower cost. The high price-performance ratio of this improved products can better meet the efficiency requirements put forward in the "GB 18613:2012," and can be widely used in the high efficiency and super high efficiency small and medium motors, compressors, and high pressure (high efficiency) motors. Especially for the small and medium motor sectors, the B50AE-1 on the one hand, and the B50AE-2 and B50AE-3 on the other hand, have high technical correspondence with IE2 high efficiency motors and IE3 super high efficiency motors respectively.

BW series of hot-rolled wear-resistant steel. With its own equipment and technology, Baosteel took the lead in successfully developing the high efficiency thin BW series of hot-rolled wear-resistant steel, and applying it to special vehicles. This product is thin and has good shape, good performance and stable quality, as well as high production efficiency. The results from the block-on-ring wear test show that the wear resistance capacity of BW400 is about 30 times of that of Q345B, greatly lengthening the product life.

High strength continuous oil pipe steel. The high strength continuous oil pipe steel developed by Baosteel is used in the oil field exploitation. Thanks to its qualities such as high strength, good erosion resistance and fatigue resistance, its scope of application and lifespan have been greatly enhanced.



Reuse of Baosteel oil casing with special threads. The BGT1/BGC oil casing with special threads is a patent product independently developed by Baosteel, and has been widely used in domestic oil fields. To realize the reuse of the special threads so as to lower the production cost, Baosteel has conducted patent authorization of this special thread to the users involved in oil field exploitation. This provided a solution to the repair and reuse of the special threads.

Chrome-free coating, green and environmentally friendly. The chrome-free coated non-oriented electrical steel is produced in such a way that the whole process including coating liquid mixing, coating baking and the after coating treatment is chrome free. The production of this type of steel totaled 146,000 tons in 2012, an increase of 11.5% from 2011.

Quench on the process line, substituting metal with water. The heavy plate department actively promoted the application of DQ process, which is not only good for energy saving and environmental protection, but also good for lowering the cost by "substituting metal with water". Currently the DQ wear resistant steel, high strength structural steel, oil storage tank steel and other products have entered the stage of process development and testing. The indicators of some products (e.g. DQ wear resistant BHARD360B) have already reached or surpassed the level of off-line quench of the similar products.

Baosteel's IF Battery Shell Steel Well Received by the Market

The battery shell steel is a kind of precision cold-rolled strip with high technical connotation, high added value and high quality requirement. The requirements on the material texture, size and surface quality are quite strict. China has become one of the major battery production bases in the world, but the battery shell steel has been long monopolized by several foreign steel companies. By independent R&D, Baosteel succeeded in overcoming many technical difficulties, developed the battery shell steel, and realized batch supply. Baosteel battery shell steel was also listed as one of the key new products both in Shanghai and in the country.

Product Marketing

Green Marketing
Environmentally Friendly Products and Production Process
Client Service
Clients' Satisfaction

Client Service

In 2012, the company carried out the technical service system planning, and established primarily the service framework both at home and abroad. By optimizing the technical service mode and position arrangement in various regions, and establishing an overseas technical service system and staff allocation all over the world, the company enforced the localized technical service and realized speedy response.

Close attention was paid to the market and site, so as to recognize the clients' demands and address their demands. The whole-flow technical support was provided, covering the process before, during and after the sale.

Before sale. (1) Learning about clients' needs, and recognizing the technical demands: optimized and deepened the use of the enquiry system, realized the whole-process control of the users' enquiry, and perfected the function of the enquiry system. This provided a system guarantee for Baosteel to fully recognize users' needs, and to share information among the Baosteel staff. The optimized enquiry system was launched in October. Efforts were also made to deal with the issues traditional dealt with after sale. A plan was made to visit major clients as an initiative to learn about their needs. (2) Carrying out technical collaboration and joint experiment for new products: pressed ahead with the EVI service, and formed several influential technical solutions. Currently, 12 joint labs have been built.

During sale. (1) Dynamically sorted of the Standard + α agreement, perfected the APN code design plan, and realized the inside and outside linkage in design, as well as the precise need transmission. (2) As for the major client complaints, the company conducted benchmarking of quality control criteria in different production bases so as to enhance the consistency of quality control. For the major client complaints regarding Meishan Steel's tin plates and the scotch marks after pickling, a benchmarking plan was made, and the benchmarking of Meishan Steel's tin plates was carried out in October, 2012.

After sale. (1) Established a classification mechanism for client complaint treatment, and perfected the client complaint information platform, turning it into a monitoring device and database for client complaint treatment. (2) Perfected the major quality problem solution mechanism: taking advantage of the comprehensive analysis meeting of production and other meeting platforms on the company level related with production, sales, and research, it promoted the solving of major quality problems.

Clients' Satisfaction

Baosteel has always been conducting the survey on clients' satisfaction and their product awareness, to deeply understand opinions and suggestions for Baosteel's products and services.

In 2012, the analytical report of the satisfaction survey was further optimized. The improved report not only made classification of these aspects including product quality, supply capability, client service and prices, but also further clarified responsibilities for various administrative departments. Clients' opinions were transmitted to the information system platform in a timely manner so as to allow the corresponding administrative department to make quick responses, and the product development appraisal department to evaluate users' satisfaction level of the replies made. This facilitates the continuous follow-up and the close-loop management of issues.

Here is a chart of clients' satisfaction results on a quarterly base from 2010 to 2012:

	Goal	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2010	90	90.1	90.7	89	90.6
2011	90	90.5	90.1	89.9	90.8
2012	90	90.5	91.0	90.8	91.0

Jointly Constructing the Efficient and Energy Saving Green Supply Chain

The popularization of the high efficiency motor is a significant step in realizing the goals of energy saving and emission reduction put forward in the "Twelfth Five-year" plan. In recent years, Baosteel gave a full play to its advantages and promoted the R&D as well as the optimization of the non-oriented silicon steel for high efficiency motors, and provided the market with the AE series of new high efficiency non-oriented silicon steel with high price-performance ratio. This has been an effort in joining hands with the motor industry to construct an efficient and energy saving green supply chain, contributing to the energy saving and emission reduction, as well as the green development for both the steel and the motor industries.

To better understand users' needs of and their feedback on the non-oriented steel for high efficiency motors, the company held "Promotion Meeting for Baosteel's Non-oriented Silicon Steel for High Efficiency Small and Medium Motors" to allow in-depth communication with users in 2012. Users including Shanghai Electrical Apparatus Research Institute, Jiangsu Dazhong Electromotor, Oriental Motor, and Jiamusi Electric Machine have all remarked that Baosteel's AE series of products had obvious advantages, in that these products have better performance, lower costs, and high price-performance ratio, and can thus better meet the clients' needs.

Baosteel's Color Coating Web Launched

In 2012, Baosteel's first professional product service web—Baosteel color coating web (caitu.baosteel.net.cn) was officially launched as one of Baosteel's measures to enforce the product construction, and deepen the connotation of client service. This platform was constructed to meet the individual user's demands, help users' to choose the appropriate material, and offer an overall product solution. Based on the Baosteel's years of experience in the R&D, manufacturing, and understanding of the material features, it also serves as a platform for the users to learn about and make choice of the color coated sheets. There are seven modules on the website, namely, product introduction, scientific material selection, project cases, anti-counterfeiting verification, simulated color match, contact us, and announcement.

Baosteel Co., Ltd. Held the 2012 Tinplate Product Development Forum

At the end of 2012, Baosteel Co., Ltd. held in Shanghai the 2012 tinplate product development forum titled "Economy, Population, and Consumption".

Through the efforts in more than 10 years, Baoshan Iron and Steel has developed into the leading enterprise in China in tinplate products with the largest production scale and product categories. Its tinplate products are widely used in such industries as food packaging and chemical, accounting for 30% of the market share, with an annual throughput of 1.2 million tons.

The Three-year Action Plan for Tinplate Products was implemented, and Baosteel Co., Ltd. took this as an opportunity to carry out a systematic planning for the sustainable development of tinplate products by sticking to the developing mode of integrating quality, price and service, and centering on the market and client needs. The three-year action plan is based on 102 action projects, and involves many aspects such as productivity and division of work for the production lines, product type exploring, size exploring, cost improvement, actual quality, manufacturing capacity enhancing, environmentally friendly process, user technology research, as well as marketing and service.

Strategic Cooperation with CIMC

Since signing the all-round strategic cooperation agreement with China International Marine Containers (Group) Co., Ltd. (CIMC) in 2009, Baosteel has established jointly with CIMC the mechanism annual top-level exchange for strategic cooperation. With the deepening of the exchange, Baosteel and CIMC extended their cooperation in various industries ranging from the main steel business to other businesses. In 2012, 23 cooperative projects were carried out, among which, the following 3 got quite good results: "Low-nickel stainless steel R&D cooperation," "Centralized recycle of waste container steel," "Supply of energy and chemical equipment and centralized settlement with CIMC". At the end of 2012, two parties signed several agreements including "2013 CIMC-Baosteel Strategic Cooperation Memorandum," and established "Baosteel-CIMC joint lab". Two parties will further its project-based cooperation model, make joint efforts in synergic creation, and realize mutual benefit and win-win development. They'll deepen their cooperation in such areas as the R&D and application of steel materials, accounting and finance, sale and promotion of CIMC products, and joint-venture cooperation in areas related with the steel industry. The joint lab provides a platform for both parties to carry out collaborative R&D, and jointly promote innovation in developing steel for the container and the automotive industries.

15

Green Logistics

- ▶ Exploring Logistic Operation
- ▶ Constructing Logistic Value
- ▶ Optimizing the Logistic Process
- ▶ Enforcing the Safe Traffic Management Inside the Plant

Exploring Logistic Operation

The collective transportation and green transportation has always been the guideline for Baosteel. By increasing the percentage of water transportation against the railway transportation, the company reduced the energy consumption and pollutant emission during the process of logistics, reduced the cost, and raised the efficiency.

For the long time, the company has been in strategic cooperation agreement with renowned transporters both at home and abroad, which ensures the safe, green and efficient logistics.

In 2012, with the goal of "Constructing the world class port," the company enhanced the profitability of Baosteel Majishan Port. It continued the production management pattern of combining the mine for its own use and for the society. The cross-department team made further efforts in advertising the competitiveness of Majishan Port to attract clients related with social mine. With years of concerted efforts from all sides, Majishan Port has become the world's biggest deep-water port for mine transportation, which integrates informatization, digitalization, and intelligence, and is thus crowned as "Pearl" of the East Sea.



Baosteel Majishan Port

Constructing Logistic Value

Optimizing port delivery model by the "three fixed" pattern. The singular logistic pattern of customer pick-up was revised to include different delivery models corresponding with the sales models. The clients and regular carriers were organized to follow the "three fixed" pattern (fixed clients, fixed lines, and fixed vessels) so as to raise the use rate of the wharf equipment.

Taping the potential of cost reduction in transportation equipment maintenance and enhancing the asset use efficiency. The comprehensive evaluation indicators for the cost reduction and the efficiency enhancing featuring "breakthrough rate + progress rate + contribution rate" were set up to guide all of the staff to deeply engage themselves in the cost reduction and efficiency enhancing while ensuring the normal operation of the transportation equipment. In the year, the rigid material consumption reduced by 10% from that of the previous year. Great attention was given to the affairs of claim settlement and waste recycling. As a result, a cost of over RMB 10 million was recovered in the year.

Pressing ahead with the transportation management system construction. The company upgraded the transportation management system to generate a unified control model that is focused on the transportation demands inside the plant, and based on the logistic resources. Emphasis was laid on the process management to organically integrate various functional modules such as planning and planed dispatch, performance, e-commerce, and cost posting. With the planned resources as the point of departure, the Company optimized the planning and scheduling, and refined the follow-up and analysis. The upgraded system serves for business of the plant area on the one hand, and is involved in the wharf commercial operation on the other hand. The overall capability of logistic management and service were enhanced.

Optimizing the Logistic Process

In addressing the difficulty of transporting large coils over 15 tons experienced by the railway transportation, the company, for the first time, used the method of carrying the steel coils with a steel supporting bracket for the pilot cargo transportation to Changchun. The pilot program was quite successful and the promise for customers was thus fulfilled.



For the transportation of the HFW coated welded tube to Australia, consideration was given to the technical condition of the product and a shipping and volume plan was carefully made to ensure the shipping quality.



Enforcing the Safe Traffic Management Inside the Plant

Cultivating civilized traffic habits. The company, in cooperation with Baoshan branch of traffic police, launched the "5.25" traffic safety day titled "Care for life, Spread civilization". By such activities as "traffic safety relay" and "traffic safety knowledge contest", it advocated a safe traffic culture that "safety is happiness, manners first, and civilization relay".

Raising staff's awareness of traffic safety. To raise drivers' awareness of traffic safety and cultivate good driving habits, the company published the practical "Study materials compiled by the traffic safety team" on a regular basis.



Social Responsibility

- ▶ Donation and Sponsorship
 - ▶ Employee's Love Relay
- Harmonious Development Between the Society and the Enterprise

Baosteel has been attaching great importance to the enterprise image and its social responsibility and has been committed to maximizing its return and contribution to the society and its investors. The most important responsibility of Baosteel is to produce in a green and efficient manner more steel products with higher quality to support the national economic development. In the meantime, returning to the society and to the investors is another important social responsibility for Baosteel. The following cases were selected to show the love in Baosteel people's heart.



Donation and Sponsorship

In 2012, Baosteel Co., Ltd. made a donation and sponsorship of RMB 34.6536 million for the society, among which RMB 34.4536 million was from the headquarters, and RMB 200,000 from its subsidiaries. The donation and sponsorship were mainly for poverty alleviation, new countryside building and comprehensive environmental renovation.

In 2012, the company spent RMB 9.15 million for Yunnan's poverty alleviation, RMB 8.85 million of which was for the four counties, including Ning'er, Mojiang, Zhenyuan, and Jiangcheng, in Pu'er city, Yunnan province. To be specific, there were 27 poverty alleviation programs, including an overall progress of the village, paired-up educational aid, technical training applicable to the countryside life, industry exploration, and renovating classrooms in danger. There was also 1 educational training program for Pu'er city. These programs have helped improve local people's life and production level. A donation of RMB 300,000 was made to the national fund for the disabled, and was specially used for the "Unfailing love, giving sight" program, i.e., to resume their eyesight by giving operation to 300 cataract patients with financial difficulties.

Through Shanghai Baoshan Environmental Protection Bureau, Baosteel donated RMB 24.5382 million for the Youyi village of Yuepu Town to carry out a comprehensive renovation. This project involved the rehabilitation of 30 households. A series of work, including the old house removal, construction waste cleaning up, housing land leveling, recreational mud deep burial and earth sheltering, as well as green landscaping. The lawns newly added totaled 7326 m², and trees and bushes covered a total of over 10,000 m² of land. The traffic noise, and dust and powder used to have a negative impact on the life of people living in this area. This greenery project has fundamentally changed the situation. The environment of the Youyi village was greatly improved, and the residents gained the most benefits as they moved into the new houses. The environment and life quality of the residents were greatly improved. Also, one more piece of public lawns was added to Baoshan District and the environment of that district was bettered.

The company donated RMB 765,400 to Shanghai Charity Foundation for the poverty alleviation of Chongming County. The three-year pair-up assistance to Bao'an Village and Mengxi Village of Chongming County was continued. The donated money was mainly used for road repair and protection, renovation of the villagers' activity center and the office, and construction (the third phase) of the planting service station. Other assistance work included the Party construction work training, the education aid, as well as visiting the households and Party members in difficulties.

In 2012, Huangshi Company donated RMB 200,000 for such activities as the third table tennis contest, metallurgical culture festival, supporting and benefiting the peasants, new countryside construction, and helping poor people in the city to improve their living standard.

Donation in 2012:

Donation by	Received by	Amount (RMB ten thousand Yuan)
Headquarters of the company	China Welfare Fund for the handicapped	30.00
	Poverty Alleviation and Development Office of Yunnan People's Government	885.00
	Donation for the environmental improvement in Yuepu town	2453.82
	Shanghai Charity Foundation for Chongming	76.54
Huangshi Company	Donation to support and benefit peasants to the non-tax revenue settlement account of the financial bureau of Huangshi City	2.00
	The third national table tennis festival, the metallurgy culture festival	10.00
	Countryside Accounting Service Center of Dawang Town, Yangxin County (Donation for the new countryside construction)	5.00
	Caring donation to Huangshi City Charity Federation	3.00
Total		3465.36

Employee's Love Relay

The Group B of hot treatment of the No. 1 sub plant affiliated to the heavy plate finishing department have been long involved in donation and other social activities. They've ever supported a mother and her daughter who were both leukemia patients. They donated RMB 2000 that they've gained from the company as an award for excellent performance and in two years time, they've collected RMB 300 per month continuously to support the mother and daughter. After the mother and daughter had better health and said again and again that they didn't need the donation any more, the group then participated in the activity of "hand-in-hand learning aid" of Shanghai city. They paired up with a college student from An'hui. Each year, they donate RMB 2500 to help the girl finish her college education.

On December 5, 2012, the international volunteer's day, Baosteel Co., Ltd. held the charity sale activity titled "Transmitting love, warming out hearts". This activity was launched based on the previous investigation in Baosteel's Hope primary school in Jiangxi. There were 5 charity sale sites in the company, and the staff participated in the sale actively. Over 800 articles were collected, and RMB 74,572 was raised. All of the income from this charity sale was donated to the two Hope primary schools in Jiangxi for them to improve the conditions for education.



The autonomous county of Guangxi Longsheng is one of the key poverty alleviation counties. Five ethnic groups including Miao, Yao, Dong, Zhuang and Han live in this area. There is only one high school in the county, and few students after graduating from the middle school would continue their education. Those who enter this high school are the best students of the local schools. But due to poverty, many of the kids cannot finish their high school education. The CYL committee of the Company's transportation department, after learning about this situation, extended their warm hands since 2006. They saved money of one taxi ride, one snacks, or one gather-together dinner and donated the money to help the kids in the deprived area to rekindle their hope for the future. The young employees responded actively to this activity. "It is a relay of love. Although in the past 6 years, the CYL committee leadership altered and there have been three rounds of leadership in the committee, but their help and caring for the students in Longsheng" has not changed. In the past years, young people from the transportation department donated an accumulative amount of over RMB 300,000, helping about 300 person times. In 2012, this program was crowned as the "Golden youth volunteer program of central enterprises".



In May 2006, Yang Lei, a young man from Baosteel Co., Ltd. volunteered to be one of China's hematopoietic stem cell donors. On March 31, 2012, Yang successfully donated hematopoietic stem cells to a 22-year-old leukemic patient, becoming the 234th successful donor in Shanghai. He has won appreciation from Shanghai Red Cross Association and the CYL committee of Baosteel Co., Ltd.



The "seven-color flower" volunteer team of the Bars and Tubes Business Unit carried out public benefit activity regularly. On March 23, 2012, the volunteers came to Baoshan Peizhi School, played games with the disabled children, and gave presents such as jigsaw puzzles, chess, and footballs to the kids. Kids had a wonderful and meaningful day with their company.

The Meishan branch of Baosteel Chemical designed such activities as "Learning from Leifeng on March 5th, and a street of service" and "Sunflower youth volunteer day" to combine their volunteer service with the enterprise's production and operation. By setting up volunteer teams for culture, environmental protection, social benefit, and youth growth, they've successfully conducted a series of activities including green landscaping and environmental protection, poverty alleviation, skill training and convenient services, sending their love to everywhere that needs it. In June 2012, the "Volunteer service base," the very first one of its kind in the industry and trade enterprises, was set up in Meishan branch. The young employees at Meishan branch regard it a "fashion" in becoming a volunteer, and 84% of the young employees joined the volunteer team.

Social Responsibility

Donation and Sponsorship

Employee's Love Relay

► Harmonious Development Between the Society and the Enterprise

Harmonious Development Between the Society and the Enterprise

In May 2012, the company's Energy and Environmental Protection Department and Baosteel Talent Development Institute signed a Party committee joint construction agreement with Baoshan Yuepu Town in order to jointly promote the Party construction and the learning-oriented organization construction so as to create harmonious community environment and push forward the synergic development between the enterprise and the community. The three parties cooperated in the eight aspects including joint study, resource sharing, emergency response mechanism, visiting Baosteel, visiting Yuepu, green campus, exchange on Party construction, and public benefit service, launched a series of project-based activities at different levels and from varied perspectives, such as "Visiting Baosteel, the steel city in the eyes of residents," "Visiting Yuepu, promoting Baosteel's concept of energy saving and emission reduction," "Three-party joint central team study," and "Three-party education aid".

The series of "Approaching Baosteel" activities jointly organized by the three parties, prepared and exhibited in the community the easy-to-understand displaying boards with pictures and introduction about six aspects including green products, residue heat use, coal gas use, side resource reclaim, new energy application, electricity saving technology, and energy saving process to interpret the theme of "Green Baosteel", as a part of the activities in the 2012 energy saving week themed "Energy saving and low carbon, green development". They also organized for the NPC representatives, the Party congress representatives, and the community residents to visit in batches, Baosteel's product exhibition center; history display center; and the 2050 hot rolling line, Baosteel's raw material wharf, and the golden finger sculpture plaza. These activities enhanced the residents understanding of the concepts of "Steel fitting in our daily life," and "Steel for better life". Baosteel also showed its efforts in value creation, honest operation, environmental improvement, and social responsibility for the employees, the community, and the suppliers, giving interpretation to the Baosteel vision of "Becoming a steel technology leader and the driver of green industry chain, and an example of the common development between the employee and the enterprise", and revealing Baosteel people's in-depth understanding of the future of steel industry and their own responsibilities.

In the meantime, Baosteel's education aid volunteers sent gift books and aid money to 14 students in Yuepu town.

There are many other similar activities among Baosteel's other Party organizations. For example, joint construction activities were carried out by the Party general branch of Luojing steel making plant and the No. 1 neighborhood committee's Party branch of Pudong Lingzhao new village, the Party general branch of No. 1 steel making sub plant and the Party general branch of Haibin new village, the Party general branch of the operation workshop and the neighborhood committee's Party branch of Baolin No. 7 village, and the Group C Party branch of the No. 2 steel making sub plant and the neighborhood committee's Party branch of Baodi Luzhou. The Party organizations joint construction activities promoted the information sharing and enhanced friendship.



In the meantime, the company carried out synergic work with the government of Yuepu town in the comprehensive renovation and environmental treatment of Yuepu No. 2 village. The company helped the village to update the facilities in the door guard rooms, the activity rooms, and exterior activity areas, changed the surveillance cameras, and the road lamps, and improved the green landscaping. The community took on a new look after the renovation. The company also made synergic efforts with Baoshan district government in renovating the environment of the "Chuanxin Zhai" of Youyi No. 5 team.

Telephone hotlines were set up and regular communication meetings with resident representatives were held to learn about the residents' feedback regarding Baosteel's environmental treatment, and to convey Baosteel's progress in environmental treatment to the residents so as to gain understanding and support from the residents.



A series of "Approaching Baosteel" activities



Giving gift books and aid money to students in Yuepu town



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Green Production

- ▶ Environmental Management Policy and Organization Structure
- ▶ Management System
- ▶ Environmental and Energy Solution
- ▶ Environmental Protection Cost
- ▶ Environmental Management Performance



Goal: To be a demonstrative steel industry in green manufacturing and circular economy.

Environmental Management Policy and Organization Structure

The company has set clear management policy for energy saving and emission reduction as well as environment protection and has set up corresponding functional departments in the headquarters and all levels of production enterprises. Specific persons have been designated to work at a full-time or part-time basis to coordinate the company's energy and environment management in accordance with the ISO14001 system, "Requirements for Energy Management System" (GB/T23331-2009) and other related national rules and regulations.

To save the space, this report has not repeated such contents as the policies for energy and environment management and related administrative organization structure. Please refer to the same report in 2010 for reference, as there is no change to these contents in 2012.

Management System

Environmental Management System

Baosteel took the lead in the industry to pass the National Environment Management System ISO14001 certification in 1998

At present, all steel enterprises under the company have obtained Environmental Management System ISO14001 certification. 15 of the 18 cutting delivery centers under Baosteel International, and the non-steel production unit of Baosteel Chemical have also gained the ISO14001 certification.

Energy Management System

In 2010, Baosteel Co., Ltd. (headquarters) led to pass the National Energy Management System certification.

In 2011, the company continued to perfect the basic energy management, promoted the implementation of the "Three flows, one status" energy management system to production units, and the major steel units under the company have obtained the National Energy Management System certification.

In 2012, Baosteel Co., Ltd. (headquarters) and BNA passed the three-year pilot certification of the energy management system. Baosteel's energy management system maintained the GB/T23331—2009 standard and the certified registration of EnMSGT-2010 "Implementation Rules for Energy Management System Certification of the Steel Industry" (trial).

Clean Production Appraisal

In 2005, Baosteel led to gain the title of "National Environment-friendly Enterprise" among the domestic steel enterprises.

In 2007, Baosteel was among the first group of enterprises to have won the title of "Clean Production & Environmental-friendly Enterprise".

In 2011, the enterprises in Shanghai, including the headquarters, BNA, and Baosteel Chemical had applied for and passed the clean production examination.

In 2012, Baotong Steel and Yantai Baojin affiliated to Baosteel International, Shanghai Packaging Steel Strips and Shanghai High strength Steel all passed the clean production examination. Yantai Baojin was recognized as an "Excellent Clean Production Enterprise" in Shandong province.

Yantai Baojin Steel Material Processing Co., Ltd. affiliated to Baosteel International is a service company involved in metal sheet processing, sale, storage and delivery. It is recognized as an "Excellent Clean Production Enterprise" at the provincial level is a breakthrough progress for Baosteel's environmental management in the processing and delivery sectors.

Green Production

Environmental Management Policy and Organization Structure
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Environmental Protection Cost
Environmental Management Performance

Education and Training on Environmental and Energy Saving

In 2012, the company stepped up the training in these subjects: energy management and its system, energy saving and emission reduction technology application, clean production and environmental management, and energy saving and emission reduction situation and policy during the twelfth five-year period. It opened 23 training classes, and about 802 person times received the training. The company also initiated innovation forum, and theme research programs to address the low carbon technology, carbon emission reduction and contracted energy management, including such contents as "Carbon trade and Baosteel's strategy," "Reclaim of low temperature residue heat," and "Energy management contracting". It completed training programs regarding the recertification of energy management staff, the professional certification of environmental management staff, as well as the training of electric balance measurement and electricity saving technology. These training programs helped enhance the energy and environmental management and the energy saving technology. The company also developed a course named "'Three flows, one status' energy management system", which was used in the training process.

Appraisal Method for Energy Management Work Stipulated by the Cold Rolling Plant

To improve the on-site energy control efficiency and motivate the staff to make concerted efforts in achieving the energy saving objective, the cold rolling plant compiled the "Appraisal method for energy management work in the cold rolling plant". The main contents are appraisals of key indicators including the process energy consumption, energy cost, and residue energy recycle, appraisals in basic energy use management, monthly statistics analysis, energy consumption sources, energy calculation, and benchmarking volume management. It also looks at the technical energy saving volume.

Green Environmental Behavior Cultivation Relay

On May 22, 2012, the CYL committee of the company organized the "Behavior cultivation relay" among young people to advocate the concept of green management, and green steel. The activity was also aimed at arousing employees' passion in environmental protection and creating an atmosphere where all staff care, support, and participate in the environmental protection. With the committee's careful organization, a "Proposal on Environmental Protection" was compiled and issued to all staff. The youth representatives of all units wearing T-shirts with "Green Baosteel" logo and red hats started from the energy and environmental protection department, via previously designed route, and arrived at plant areas of Baosteel Co., Ltd. At each joint point, they relayed the CYL flag, handed out environmental protection leaflets and environmentally friendly bags, read aloud the "Proposal", and carried out public volunteer labor work.



Speical report: stepping up the energy system control

In 2012, the company full explored the function of the energy control sytem focusing on the control of "Three flows and one status". Through streamlining, refining and explication of the energy management, it gave prominence to the value orientation function of the energy management, and tapped the energy saving potential in management and technology. The energy cost management was enforced to further reduce the energy cost.

- (1) Enhancing the energy management information system function to form a refined energy management pattern. Taking the "key energy efficiency factor (EEF)" and the "energy consumption source" as the breakthrough, the company enforced the whole-process energy management. The energy management analysis was refined, and the precision of the energy management was furthered. The depth of energy management moved from the department, to production processes and to the core of cost, to realize an effective energy control at the energy consumption sources. The explication of energy management helped to reflect the complicated energy flow and value flow change.
- (2) Perfecting the "Three flows, one status" energy management indicator appraisal system. With the company enlargement, its extension in production lines, and the deepening of product process, the energy consumption per ton steel can no longer reveal objectively the company energy management level. In 2012, the company designed for the first time, the "Process energy saving" indicator; that is, an observation of the energy consumption in the same process as compared to that of the same period last year; to correctly reflect the energy saving in various production lines and processes. In 2012, the company saved 63,500 tons of energy from the production process, surpassing the annual goal. With the 50 key energy efficiency factors defined by the company, the EEF progress rate reached 56%.
- (3) Strengthening the internal auditor and managerial team building for the continued progress of the energy management. The internal audit team for energy system was set up to promote the self-improvement in energy management system. The company recompiled the training material for internal auditor and work leader training regarding the practical energy management, and the criteria and audit of energy management system. This was helpful in raising the energy management skill and quality of the managerial staff at the base level.
- (4) Perfecting the supervision, evaluation, and continuous improvement of energy-saving and environment-protection equipment. With a goal to raise the effective operation and the equipment efficiency of the energy-saving and environment-protection facilities, the company further improved the "Requirements of energy-saving and environment-protection equipment management", carried out the equipment management by categories, and realized a good control over the function precision and operation efficiency of the said facilities. The energy utilization efficiency and environment protection operation efficiency were also enhanced. The residual energy recycled from the facilities in 2012 reached 2.21 million tons of standard coal.

Environmental and Energy Solution

Industry Structural Adjustment

On July 4th, 2012, Shanghai municipal government and Baosteel Group signed "Cooperation agreement on Shanghai Baoshan iron and steel industrial restructuring".



This round of adjustment is to meet the requirements of national steel industry planning and energy saving and emission reduction by adhering to the general plan of "Gaining momentum from innovation, and seeking development by transformation," and the general principles of "Reduction, efficiency, adjustment, and development". From the perspective of contributing to the national strategy of steel industry development, to the transformed development of Shanghai, and to the competitiveness of Baosteel, it is decided that a Baoshan district steel industry structural adjustment is to be carried out from 2012 to 2017, with a goal of promoting energy saving and emission reduction, as well as the harmonious development of the steel industry and the city. Adjustment will be made to the enterprises in Wusong industrial zone and the production base to realized transformed development by building them into the production bases for strategic new industry, new materials and environmentally friendly industries. It is expected that after the adjustment, the iron and steel throughput in Shanghai will be reduced by 5.8 million and 6.6 million tons respectively, correspondingly reducing 3 million tons energy consumption of standard coal.

In September 2012, the Luojing district of Baosteel Co., Ltd. was smoothly closed down. Also, the asset sale of the Stainless Steel and Special Steel business was completed in the year.

Application of Regular Energy-Saving and Emission-Reduction Process Technologies

Currently, all popular advanced energy-saving and emission-reduction process technologies have been used in Baosteel. In 2012, Baosteel continued to take great strides in implementing the energy-saving and emission-reduction projects. Based on the six special projects including the efficiency power plant, high efficiency furnace, high efficiency motor, reuse of residue heat, energy saving on compressed air system, and optimization in water treatment, the company combined professional energy saving forces, fully explored the advantage of the new mechanism of energy management contracting, implemented 30 advanced energy-saving and emission-reduction technologies and realized a technical energy saving of 68,500 tons of standard coal.

Based on the experience of EMC application in the previous two years, the company took lead among the large steel enterprises in China to issue the "Management Method for Energy Management Contracting Projects" and the technical standard. It also stipulated the standards for various EMC project work concerning the safety, environmental protection, transport, energy, document filing, material out-of-plant processing, and settlement that are related with all parties. This ensured the safe and efficient progress of the EMC projects. In 2012, the company initiated 33 EMC projects, with an estimated energy saving of 34,900 tons of standard coal.

In 2012, the company had 37 energy-saving research projects, 10 of which were completed; 20 energy-saving technical innovation projects, 12 of which were completed; and 12 energy-saving renovation projects, 10 of which were finished.

In 2012, the company carried out 81 environmental protection projects, 64 of which are technical renovations, and 17 of which maintenance ones. The company completed the addition of smoke desulfuration units to the No. 1 and No. 3 furnaces of Meishan Steel, the steel making desulfuration slag treatment project, the comprehensive renovation (phase II) of the slag treatment in the No. 2 sub plant of the steel making plant, the 2BF cast house dedusting system renovation of the iron making plant, and the belt closing in the sintering area of the iron making plant (first batch). It also started the following projects: electric dust removing device renovation of No.1 and No.2 units of the power plant (phase II), de-saltpetre renovation of No. 3 unit furnace of the power plant, the stock ground drainage facility renovation of the iron making plant (phase II), the addition of the system of dust removal during cock discharge for the phase three coke oven of the iron making plant, comprehensive steel slag treatment renovation in the No. 1 sub plant of the steel making plant (phase I), and energy-saving and emission-reduction renovation of the rotary kiln for baking of the steel making plant.

Renovation of the Raw Material Site

To upgrade the company's green manufacturing and clean production and to ensure all coals in the storage house and all mines in the warehouse, the company initiated in 2012 the raw material site renovation as a complimentary measure to the comprehensive renovation of the sintering area of the iron making plant. Such advanced technologies as the shed enclosure of the stock ground, and the enclosed conveyer will be used to construct a closed storage house which will greatly reduce the dust pollution for the surrounding area.

Waste Heat Recovery from the Exhaust of Heat Furnace in Hot Rolling Plant

The Company's largest investment in the energy management contracting project of waste heat recovery, the 1880 hot rolling heating furnace exhaust waste heat recovery project, was completed and put into use in 2012. It can realize an annual energy saving of 113,000 tons of standard coal.



Power Generation from Steam Pressure Difference

In May 2012, by substituting the previous steam temperature reduction and pressure reduction process, the first demonstration equipment of power generation from steam pressure difference was successfully launched in the 1420 cold rolling steam reducing station, realizing an annual electricity saving of 2 million kilowatt-hours, and setting a solid foundation for furthering the energy cascade use in the steam system.



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Comprehensive Coke Oven Upgrading

By substituting the 6-meter coke ovens with the 7-meter ones, Baosteel Co., Ltd. realized the goal of raising the standard in energy saving and emission reduction during the coking process. The new 7-meter coke oven uses several new technologies and processes in energy saving and emission reduction. It uses the coke dry quenching process, which, in combination with the coke dry oven and the residue heat furnace system, can effectively recollect the waste heat in the red hot coke, reduce the heat loss, and enhance the coke quality. In terms of pollutant emission that received much attention, several coke over smoke and dust control processes were used, such as the dedust system for the four major vehicles, and the coal tower dedust system. The ground coke discharge and dedust process was first used to avoid the coal gas and powder spill during opening the oven door and the coke discharge. The first domestic coking wastewater drainage demonstration equipment was built. In addition, the computerized automatic heating system for the coke oven and the waste gas loop combustion process were used.

Sinter Waste Heat Recovery

In January 2012, the No. 5 sintering waste heat recovery system for the No. 5 sintering system of Meisteel was completed and put into production. The heat recovery system recollects the phase I and II waste heat from the circular cooler of the sintering process, and generates about 40 tons of superheated steam.

In July 2012, Meisteel Energy Company launched the 25 MW waste heat steam set generator to generate electric power, basically realizing the zero waste heat steam emission for Meisteel.



Ingot Insulation Transportation

The ingots produced by Baosteel's BV30 unit are materials for the blooming mill of the bar and tube business unit. There are over 2 kilometers from the casting area to the blooming mill area. Previously, the ingots were exposed in the open air during the transportation, and the temperature would drop greatly, resulting in a huge amount of heat loss. More heating would be needed before the blooming mill process. This had not only prolonged the heating time, but also increased the fuel consumption. To reduce the heat loss during transportation, the ingot insulation transportation was carried out. As a result, the temperature drop was much less, about 84°C lower than that of the same period last year. This can help save 878 tons of standard coal.



Hot Charge Rolling

The hot charge rolling means that the continuously casted material do not need to touch the ground, but will be sent to the hot-rolling heating furnace directly to fully conserve the temperature and minimize the heat loss so as to save energy for the heating furnace. In real production, "Striking the iron while it is hot" is indeed difficult since there are many restrictions posed by the capacity, product type, production organization and logistics, which means the requirements for the site management and the coordination between production units are quite high.

Baosteel started to lay emphasis on the hot charge rolling quite early. In 2009, the company formed the hot delivery and installation team to work at the I580 pilot line. By improving the hot delivery and installation technology, the heating furnace consumption was lowered and the clean production process control was realized in the hot rolling area. In May 2011, the I580 line became the first of its kind to reach the national standard of first grade clean production, and its hot delivery and installation reached world-advanced level. In September 2011, Baosteel took lead in the domestic industry in issuing "Work Guid for Energy Saving of the Hot Process", providing an important support to the standardized control and sustainable development of the hot delivery and installation work.

In 2012, based on the successful experience of the I580 line, the company furthered the hot charge rolling work in the hot rolling area, and reaped good results, saving energy equal to about 4,800 tons of standard coal.



Recovery of the Steam Condensate

In 2012, the Baoshan branch of Baosteel Chemical launched the recovery of the steam condensate project. It has a capacity of recovering 50,000 tons of steam condensate annually.



A Baosteel Chemical employee was recovering steam condensate on site

Technical Upgrading of the Coal Gas System in Baosteel Chemical

In 2012, Baosteel Chemical completed its technical upgrading of the coal gas system, which was put into operation. In this project, upgrading was made to the coal gas emission, coal gas purification and wastewater treatment. The coal gas emission process was improved to enhance its environmental performance. The FRC coke oven desulfuration and decyanation process as well as the anhydrous ammonia process were used in the coal gas purification. The waste water treatment equipment is the first waste water of coking zero emission demonstration facility in China, which will enable the further use of wastewater.

Meisteel's Demonstration Project of Energy Management Contracting

In a year's time, Meisteel's demonstration project of energy management contracting was smoothly completed in 2012. The project involves such areas as fan system, water system, cold and hot source system, and green lighting. Five departments took part in the construction and made efforts in the water, energy and filling material saving, realizing an energy saving of 3.75 million kilowatt-hours.

For example, in terms of the green lighting, Meisteel renovated the 708 road lamps in the plant area and the residential area, substituting the quartz metal halide lamps and the high pressure sodium Lamp with the ceramic metal halide lamps, reducing the electric consumption from 284 watts to 95 watts per hour, and increasing the illumination area from 6.5 lux to 20 lux, realizing a energy saving rate of 67%.



Energy Center Building 130-kilowatt photovoltaic system demonstration project

Demonstration Application of New Energy Technology

To accumulate experience in photovoltaic grid-connected electric power generation, the company initiated the "Energy Center Building 130-kilowatt photovoltaic system demonstration project" by way of energy management contracting in March 2012, as a pilot program for solar photovoltaic power generation. The project was put into operation in May and maintained a stable status. It successful set a solid base for Baosteel to fully launch the solar photovoltaic power generation program.



Chairman Xu Lejiang and President He Wenbo inspecting the solar energy power generation station on the rooftop of the Energy Center Building

Based on the success of the 130-kilowatt photovoltaic project, and to realize the sustainable energy use in Baosteel, Baosteel undertook the national "Golden Sun Demonstration Project" in the steel industry. Baosteel's pilot "Golden Sun" project has an installed capacity of 50 MW and an estimated annual power generation of 50 million kwh. It is by far the largest solar power generation demonstration project in the steel industry. The solar modules will be installed on the roof to take in solar energy. It will make good use of the idle roof area and will not take up any land resource of Baosteel. This is an example of Baosteel's efforts in promoting an energy saving and environmentally friendly society and in implementing its strategic goal of environmental management. This will greatly increase the clean energy supply, ease the pressure of environmental treatment, and raise the standard of green development.



Baosteel "Golden Sun Photovoltaic Demonstration" Project

Note: the "Golden Sun Demonstration Project" plan was initiated by China in 2009 to encourage the domestic photovoltaic power generation development. It is to cultivate strategic new industry.

Perfecting the Whole Process Management of the Secondary Resource

In 2012, the company systematically carried out the optimization of the comprehensive treatment of secondary resources.

It strengthened the exterior synergic technical support for the industrialization of secondary resource. This includes the industrialization of the reuse of slag and micro dust, magnetic materials, waste refractory materials, and waste oil. It also promoted the steel slag and micro dust trial line construction of the MCC Baosteel Technology Services Co., Ltd. and the further usage of steel slag products such as the water permeable brick, and the shot blasting material. A green energy-saving model villa was built with Baosteel's secondary resources. The steel slag water permeable bricks were used to pave the sidewalks of the main roads inside the plant like the No. 3 Wei Road.

Environmental treatment of the solid waste storage fields. Through comprehensive renovation, the solid waste storage fields outside of the plant in Baoshan district was reduced from 42 to 8, and the storage field environment has been greatly improved. As for the storage fields inside the plant, the project of silo air compressor improvement was completed, and green landscaping was made for the 60,000 m² of the wetland area.

The research and application of secondary resource reproduction. These secondary resources were well recycled in the company: the iron oxide sludge pressed balls in the hot rolling plant reclaimed for steel making, the wear debris pressed balls from the steel tube plant returning to the electric furnace, and the electric furnace dust and the blast furnace sludge were reused by Baotong Steel. The comprehensive utilization rate of the secondary resources in the headquarters reached 98.9%, and the reproduction rate of such resources reached 27.9%, both reaching a historical new high.

In the meantime, to raise employees' awareness of environmental management, promote the technical progress of the secondary resource use, enhance the research result transformation quality, and also to gather social resources to speed up the industrialization of the secondary resource use, the company, at the end of 2011, was jointed hands with Baosteel Development, Baosteel Engineering, and Shanghai Resource Comprehensive Utilization Association to hold a creation contest about the comprehensive use of the secondary resources with the theme "Finite resources, infinite creation, low carbon action starting with me". Domestic colleges and universities, research institutes and Baosteel units all responded actively. 199 works of new products or new projects were received in 6 months. During the course, a theme forum on the creation contest of secondary resource comprehensive utilization was also held with four sub-forums including the industrialization of metallurgic solid wastes for construction industry, magnetic material and its future, steel packaging, and factory energy saving process.

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Baosteel's Green Energy-Saving Model Villa

This green energy-saving model villa was built with steel secondary resources such as desulfurized gypsum, water sludge, steel slag, mineral cotton, and fly ash. It demonstrates Baosteel's achievement in comprehensive use of the secondary resources, infusing brand new concepts into the fields of construction materials and architecture.

The construction of the model villa was broken through the traditional ways. The site operation is simple, fast, and efficient. Except the concreting process, no wet operation was involved, which greatly reduced the environmental pollution by site operation. Also the cost is lower than that of the brick and concrete structure.

Reuse of Landfill "Waste Sludge"

The dolomite cake is a kind of waste from the baking process of steel making. Previously, it would be disposed by burial. Through independent R&D and inviting suppliers to conduct processing experiment, the dolomite cake for landfill was made into useable materials, and was successfully used in the rotation furnace for steel making as a substitution for the furnace protection material.

Establishment of the Joint Lab for Iron and Steel Slag

To speed up the scientific and technological achievements' transformation into practical productive forces, enhance the technical innovation capacity and technical level in the comprehensive use of secondary resources, and promote the advancement of the circular economy, Baosteel Research Institute and Baosteel Development Company jointly built the "Joint lab for the comprehensive use of iron and steel slag" in 2012, and decided to initiate the cooperative development in five research projects including the hot blast furnace melt slag direct production of ore cotton, and the application of steel slag in agricultural fertilizer. The research plan will be implemented in a project-based manner.



Improving the Energy Management Informatization

In 2012, the company continued to press ahead with its environmental protection on-line management platform construction. The water quality automatic monitoring system and the air quality automatic monitoring system were upgraded. The air quality monitoring and report were renovated to realize the on-line statistics of the air quality in the plant area. The current system software for surveillance displays was upgraded with an enlarged volume so as to meet the needs of the environmental surveillance cameras. Efforts were also made to promote the mobile surveillance application environment and the mobile software development to enforce the surveillance of the source of pollution, and increase the perception and risk warning ability against the over-standard emission.

Environmental Improvement for the Production Area

To enhance the company's environmental image, and reduce the bad impact on the environment by such factors as the large-scale engineering construction, increasing production load, and the aging of equipment, the company, in accordance with the priorities, carried out a series of environmental renovation. In the meantime, the Party committee, the administrative body, the Labor Union and the CYL committee of the company worked jointly to spread the necessity and significance of environmental improvement, cultivate a good habit among the employees who could make their share of contribution to the environmental improvement. The company compiled a grid division diagram regarding the plant's landscaping. According to the geographical location and the responsibility system, the plant was divided into several parts. Each unit is responsible for the landscaping of one part. In management, the "Five Fixed" methods was used, that is, there were fixed responsible people, duty areas, goals, maintenance measures, and contacts. Specific landscaping goals were given to responsible units and follow-up supervision was made to promote the continued improvement of the plant environment. The theme tree planting activity titled "Adding a touch of green with my hands for my plant" was held to raise the employees' awareness of environmental protection. In 2012, the headquarters of the company renovated a total greenery area of 97,000 m², including 75,000 m² newly added green area.



Employees participating in the tree planting activity



At the area near the Transportation Department of Baosteel Co., Ltd.



A view on one side of the blast furnace

"Top Ten" Scenic Sites of the Power Plant

Since it was first built, Baosteel Power Plant was used to be called a "garden plant". To raise employees' love for the plant and to cultivate the environmentally friendly habits, when its 30-year anniversary the Power Plant held an activity soliciting photographs of the plant and naming of these scenic spots from employees in 2012, with the title "Beautiful Power Plant in my eyes: Top Ten scenic sites".



"Concentric court"



"Spring with crabapple"



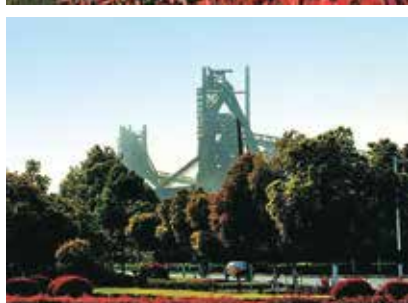
"Snow-white cherry blossom"



"Bamboo cherry meeting"

The company continued in implementing Shanghai city's "Fifth round of three-year action plan for environmental protection", and combined this effort with its daily management of environmental protection projects. It pressed ahead with the preventive treatment of major industrial pollution sources, and effectively carried forward the projects in accordance with the schedule. 7 of the 10 projects that were listed in the three-year action plan were completed in the year; and the other 3 projects are carrying out in orderly implementation as planned.

On September 20, 2012, a collective wedding ceremony themed "Green Meisteel, Happiness in 2012" was held. 60 new couples expressed their idea of environmental protection and low carbon life by planting trees together, flying pigeons, and writing a green declaration.



Meisteel initiated the "Green Meisteel" efforts entering on the main tasks of energy saving and consumption reduction, pollutant emission reduction, and plant environment improvement. According to the plan, 184 projects will be carried out in 2-3 years to create a green steel production park that enables the harmonious existence of men and nature. It is to build Meisteel as one of the industrial tourism sites in Nanjing, featuring a park of blast furnace, a greenery park with coke ovens, comprehensive shelterbelt forest for the steel making, and a flower ecological park for the rolling plant.



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Environmental Protection Cost

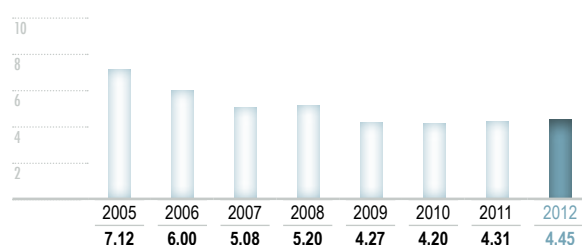
As shown in the following chart, the composition of the company's environment protection cost was grouped into expenses and capitalized expenditure that amounted to CNY2.849 billion and CNY0.423 billion respectively. In recent years, due to the large investment in the desulphurization facilities in the power plant and sintering, the operation and depreciation expenses of environmental equipment have been occupying an increasingly higher percentage in the compensation project cost, which reached 76.04% in 2012.

Category of environment protection cost	Item of environmental protection cost
Expenses	Discharge fee
	System examination fee
	Environment monitoring fee
	Facility operation fee
	Facility depreciation charge
	Labor fee
	Hazardous substance transportation fee
	Landscaping fee
	Solid waste disposal fee
	Investment in new projects and updating and expanding existing projects
	R&D expenses
	Others
Capitalized expenditure	Investment in new projects and updating and expanding existing projects
	"Three Simultaneous" accompanying project investment

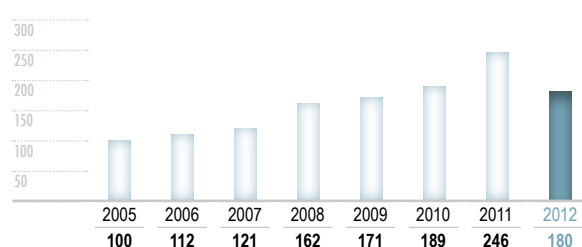
Energy Management Indicators

In 2012, the company fulfilled all energy conservation targets, realizing the energy saving of 63,500 tons and 68,500 tons of standard coal during the process and by technical means respectively.

Fresh Water Consumed Per Ton of Steel (t/t-s)



Total Residual Energy Recovered (%)



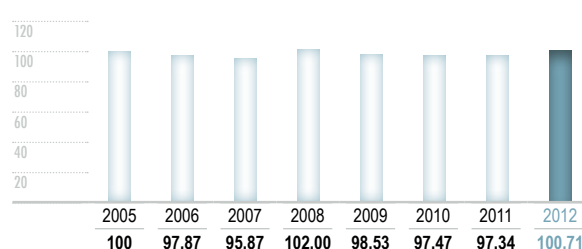
Environmental Management Performance

Consumption Materials

2012 Company's major resource consumption

Type of resource	Unit	Amount consumed
Iron ore and finished ore	10,000 tons	3440
Steel scrap	10,000 tons	159
Coal	10,000 tons	1639
Natural gas	100 million m ³	2.15
Purchased electricity	100 million kw•h	61.5
Raw water	100 million m ³	1.02

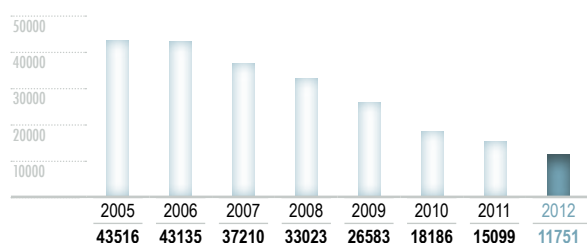
Overall Energy Consumed Per Ton of Steel (%)



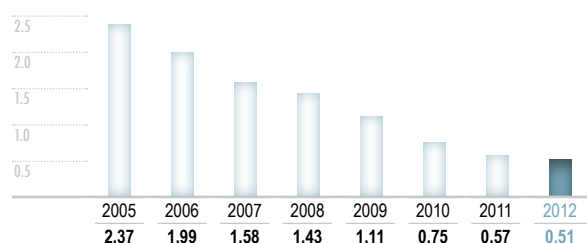
Emission Control Indicators

In 2012, on top of the enhanced technical support and the operation of environmental management, the company carried out a number of environment protection projects. As a result, all indicators were within the annual targets, with major ones continuing to be raised. Comparing to the performance in 2011, the total SO₂ emission was reduced by 22.2%, and the COD emission in the wastewater was reduced by 9.0%.

SO₂ Discharge Amount (Ton)

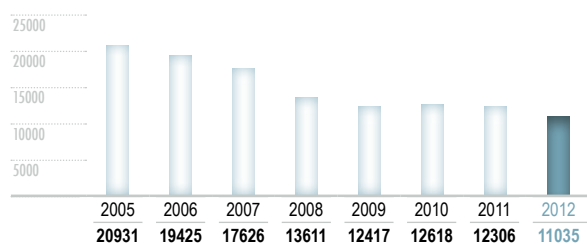


SO₂ Discharge Level (kg/t-s)

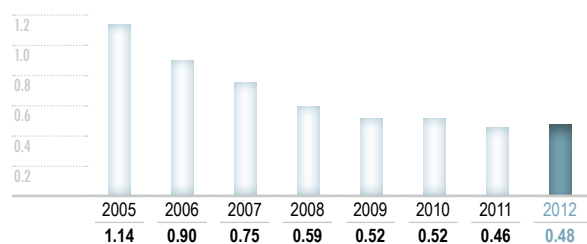


The total SO₂ emission was reduced by **22.2%**

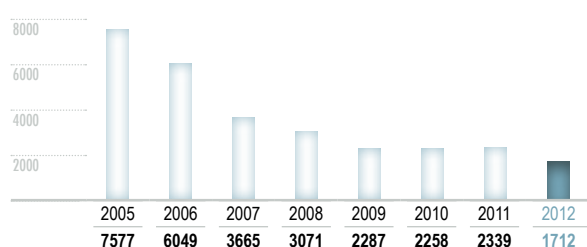
Dust Discharge Amount (Ton)



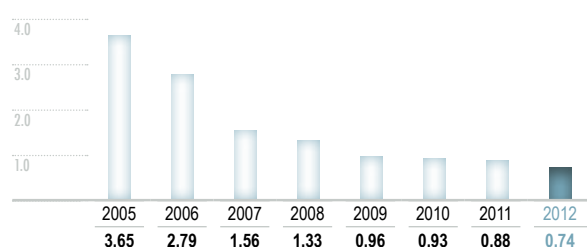
Dust Discharge Level (kg/t-s)



Wastewater Discharge Amount (10,000 ton)



Wastewater Discharge Level (t/t-s)

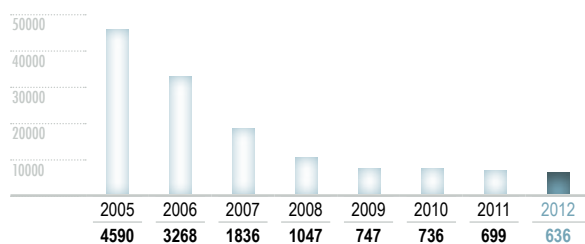


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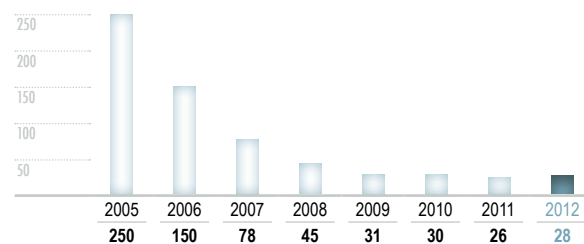
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Cod Discharge Amount (Ton)

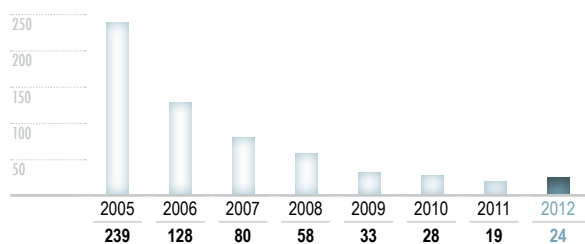


Cod Discharge Level (g/t-s)

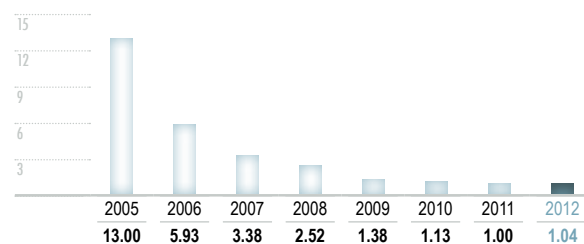


COD emission in the wastewater was reduced by **9.0%**

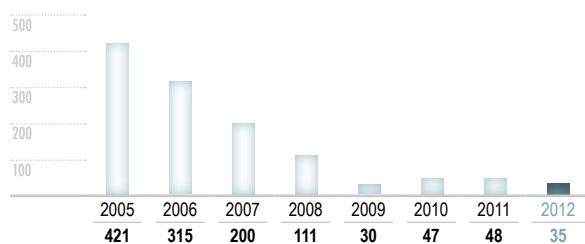
Oil Discharge Amount (Ton)



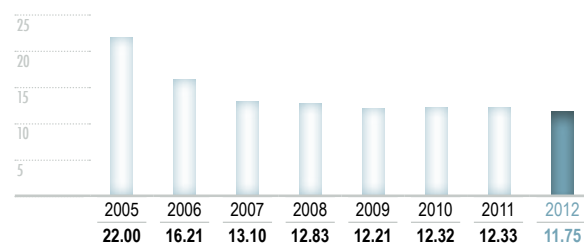
Oil Discharge Level (g/t-s)



NH₃-N Discharge Amount (Ton)



Atmospheric Dust Deposition in Plant Area (t/km²-month)

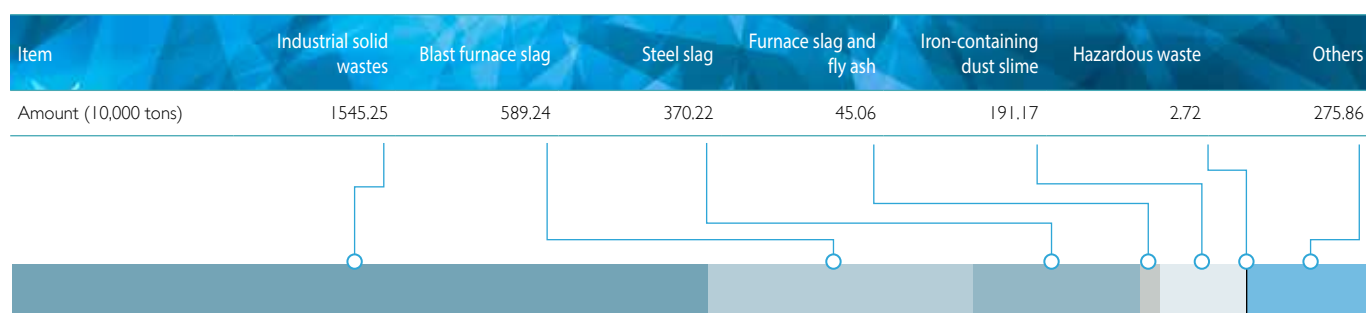




Secondary Resource Utilization Management Indicators

In 2012, the company's secondary resource utilization rate reached 27.88%, its best performance in records.

Solid secondary resources generated by Baosteel Co., Ltd. in 2012



Reuse of the secondary resources by Baosteel Co., Ltd.

Item	Unit	2006	2007	2008	2009	2010	2011	2012
Comprehensive reuse rate	%	98.32	98.48	98.33	98.26	98.58	98.81	98.90
Recycling production utilization rate	%	22.48	22.67	23.47	25.38	26.04	27.26	27.88
Rate of safe disposal of hazardous waste	%	100	100	100	100	100	100	100

Safe Disposal of Hazardous Waste

Major hazardous wastes from production in Baosteel include: waste oil (barrels), oil-containing wastes, oil-containing wastewater; chrome-containing wastes, chrome-containing sludge, phosphide sludge, organic wastes, waste desulfurization substance, water-containing naphthalene slag, tin-containing waste liquid, waste acid and alkali liquid, waste emulsification liquid, waste light tubes, waste fixative liquid, and catalyzer etc. In 2012, the headquarters of Baosteel Co., Ltd. disposed 11,514.58 tons of various hazardous wastes, and all the disposal work was entrusted on companies with qualifications for hazardous waste treatment. In 2012, Baosteel Co., Ltd. disposed 27,205.42 tons of various hazardous wastes, and all the disposal work was entrusted on companies with qualifications for hazardous waste treatment.

To reduce the secondary pollution of the hazardous wastes in the process of transportation, and raise the timeliness in hazardous waste treatment, the company adopted the localized management of all hazardous wastes. In recent years, the company has been stepping up the management of the hazardous wastes. All hazardous wastes disposal were entrusted on qualified companies, and were reported to the local government for backup. All safe treatment of the hazardous wastes was recorded for reference.



Operating Results

► Economic Value Created and Distributed
Indirect Economic Impact

Economic Value Created and Distributed

Operating Income and Cost

In 2012, the global economy was still in fluctuation, and the domestic economy slowed down in growth. Demands from major domestic downstream industries was gloomy, intensifying the demand-supply conflicts for the steel industry, and resulted in a continued steel price drop. The gloomy steel market urged the steel plants to stop production and start equipment check and renovation. But the situation that the supply surpassed the demand was not fundamentally altered. The steel industry was in extreme difficulty. Faced with the severe challenges, all departments responded actively to the requirement put forward by the company and took measures to optimize the production organization plans, tap the potential of the bottleneck processes to further reduce the cost and enhance efficiency internally so as to ensure the stable production and strike a balance between the production and sales. In the year, 23.56 million tons of finished products and billets were sold and RMB 191.5 billion of total operating income was generated.

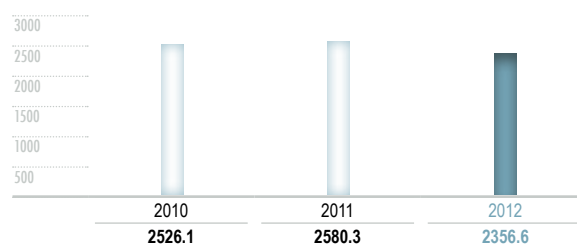
Profit

In 2012, the steel industry at home and abroad was faced with a severe situation. Domestic steel industry suffered a loss for the whole year. The profit of most steel enterprises both at home and abroad dropped greatly. The company overcame such difficulties as overcapacity of the industry, and the steel price drop, worked actively to adjust the product mix and business structure, shifting the limited resources to the products with strong profitability. By optimizing the resource allocation, enforcing cost benchmarking, and solidifying the cost improvement results of sales and administrative expenses, the company registered a good operating result, realizing an annual profit of RMB 13.14 billion. Leaving out the effect of RMB 9.58 billion from selling the assets and equity of the Stainless Steel and Special Steel business, and RMB 2.645 billion of asset loss from the Luoqing fixed asset to be disposed of, the operating profit of the year was RMB 6.2 billion, which remained to be the best performance among its domestic peers.

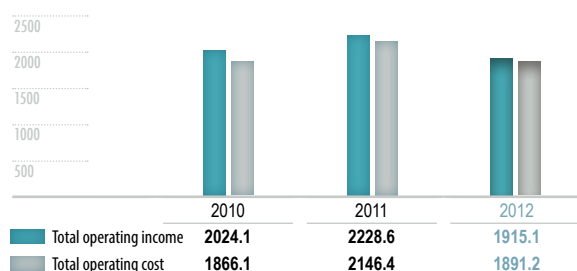
Compensation for Employees

In 2012, the company paid CNY8.8 billion in cash to and for employees.

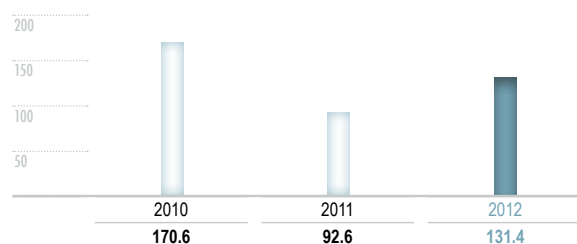
Sales of Finished Products and Billets of the Company (10,000 tons)



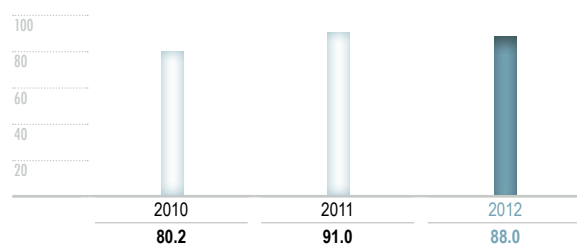
Total Operating Income and Operating Cost (CNY 100 million)



Gross Profit (CNY 100 million)



Cash paid to and for employees (CNY100 million)



Retained Earnings and Dividend Distribution

According to the Articles of Association of the company, the allocation order of the after-tax profit is as follows: recovery of losses, statutory reserve, discretionary reserve, and common share dividend. The statutory reserve equals to 10% of the company's after-tax profit, subject to a maximum accumulated amount equal to 50% of the company's registered capital. In accordance with national laws, administrative regulations and the company's operating results and development needs, the plan for allocation of discretionary reserve and distribution of common share dividend will be developed and submitted to the shareholders' general meeting for approval. The company shall not distribute any dividend before the loss is recovered and the statutory reserve is set aside.

According to the company's cash dividend policy, the annual dividend cash dividends should not be less than RMB 4.19 billion. Also, it is stated in the "Guidelines of the Shanghai Stock Exchange on Cash Dividends by Listed Companies," that the cash paid for the stock repurchase in the year should be regarded as cash dividends for the year. By December 31, 2012, the company had made a cash repurchase of RMB 1.92 billion. Taking into account the realized stock repurchase, the company planned to dispatch a total dividend of RMB 2.28 billion (tax included) to all shareholders as registered on the equity registration date.

Capital Suppliers

The company continued to optimize debt structure in proactive response to changes in the financial environment and changes of exchange rate.

In 2012, the company continued the US-dollar financing strategy. It adjusted its debt mix by getting overseas advanced payment and enlarge the overseas financing platform. Here are measures taken: (1) Furthering the overseas operation in the raw materials import to fully use the low-interest financing resource overseas; (2) Extending the overseas financing term and enlarging the scale of overseas financing available; (3) Adjusting the settlement method for overseas subsidiaries, and enlarging the scale of US-dollar financing overseas.

In risk management, it reinforced the currency exchange risk management by dynamically adjusting the currency exchange risk strategy and seizing the opportunity to carry out the forward USD purchase business. Here are the measures: (1) Maintaining the US-dollar financing comprehensive cost at a low level by forward USD purchase operation; (2) Carrying out USD purchase in advance to pay for the USD borrowings according the market trend of the foreign currency exchange rate.

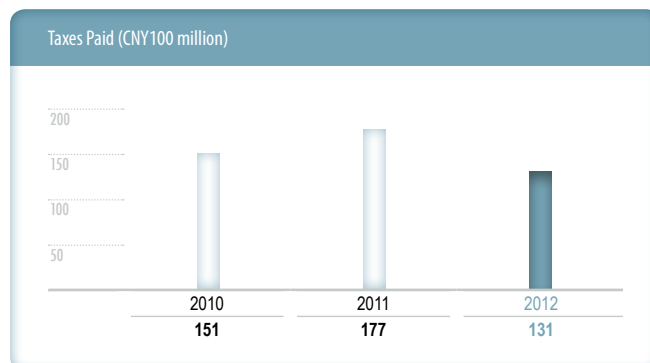
Through these measures, it managed to maintain a low cash financing cost rate within 2.5% in 2012.

Partnering financial institutions were selected based on their credit standing, business strengths and market reputation. Relations with financial institutions were coordinated at an overall level. In addition, the company values relationship with banks. The company entered into cooperation agreements with major commercial banks, overall facility agreements and easy loan agreements, thereby assuring the financing channels and amount of the company.

Taxes

Taxes paid in 2012

Repaying the society with integrity and good operating results, the consolidated amount of taxes in 2012 for the company is CNY13.1 billion. The good tax-paying performance won the company the "Shanghai Class 'A' Taxpayers" for consecutive years.



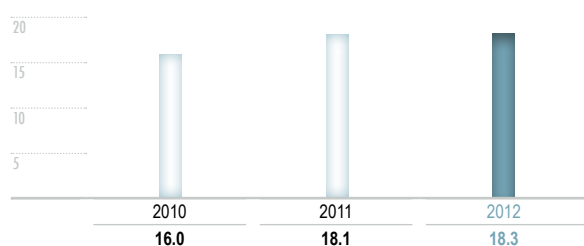
Note: Customs VAT and tariff were included in the taxes paid.

Tax deductions and exemptions

The company strictly observed tax laws and regulations of the State and reasonably utilized preferential policies. The tax reduction and exemption of the company in 2012 were as follows:

1. Covered by the preferential policy on corporate income tax of comprehensive resource utilization projects, CNY 25 million of corporate income tax was exempted 2012.
2. Covered by the R&D cost deduction policy, CNY 0.37 billion of corporate income tax was deducted in 2012.
3. Covered by the policy on deduction of special equipment investment from corporate income tax, CNY 10 million of corporate income tax was deducted in 2012.
4. Covered by the deduction of tax for payment for handicapped employees, CNY 1 million of corporate income tax was deducted in 2012.
5. Covered by the tax refund policy for high-tech achievement commercialization project CNY 40 million of taxes were refunded in 2012.

Interest Expenditure (CNY100 million)



Operating Results

Economic Value Created and Distributed

► Indirect Economic Impact

Indirect Economic Impact

In 2012, the company has no indirect economic impacts including major actions, arbitrations, asset acquisition or sale or merger by absorption.

The global economy has experienced a great change. While the world remains in the plight of the financial crisis of 2008, the Euro debt crisis occurred, it is resulting in a prolonged low growth of the world economy. China's export will be faced with a low growth rate or even a negative growth, which will impact on the export business including the steel industry and downstream industries. Most importantly, the financial crisis is changing the growth structure of the world economy. Major developed countries continuously put forward new policies to spur their domestic production and expand exportation, with a focus on technical innovation and new industries. As a result, China's manufacturing sector is under the double pressure posed by the developed countries and the new economy, which means the requirements for domestic enterprises to upgrade and transform are even more urgent. In the meantime, the ongoing industrialization and urbanization continue to provide momentum for China's economic growth. "China Manufacturing" still has obvious competitive power in the world. China remains in the period of important strategic development.

In recent years, "Meager profit" gradually became a hot expression. It seems that it becomes certain that the steel industry is faced with a gloomy future and the situation is worsening. Since September 2011, domestic steel industry entered the cold winter. The steel industry either seeks development from the meager profit operation or strives for existence on the edge of profit and loss. After nearly 10 years of fast development, the supply-demand relation has reversed and the steel industry has stepped out of the situation where "Demands surpass the supply," into the situation where "Supply surpasses demands". On the one hand, the overcapacity is intensifying, and on the other hand, the demand is slowing down. As the rule of industry development shows, no industry could expect an unending fast speed development. After over 10 years of continuous fast development, the extension of China's steel industry is approaching the end. The meager profit operation is what the industry must experience in the process of industry upgrading. Either the resource or the environment can no longer sustain the extensive growth of China's steel industry. The sudden downturn of the steel market is unavoidable. It is not exaggerating that China's steel industry has arrived at a crossroad. If not to seek transformation, it is highly possible that this "Hidden pain" will become the bottleneck for the downstream industries or even the whole national economy. This will indeed be the "unbearable heaviness" for the steel industry.

The steel industry must treat this "Meager profit time" with a dialectic view. Even though the current situation is characterized by the "Meager profit," it does not change the fact that both opportunities and challenges will exist in the future. Steel, as the traditional basic material, remains to enjoy a great importance in the economic development before the birth of any other substitution materials. China's urbanization and industrialization continues to provide good opportunities for the steel industry. China remains to have a stable demand on steel. The current overcapacity of the industry will promote real market competition, urging the steel enterprises to enhance their competitive force, and thus bringing about a new round of rational integration. In the meantime, in face of the third industrial revolution combining the Internet and the secondary resource utilization, China, for the first time, is on the same starting line as many developed countries. This poses both challenge and opportunity for the manufacturing industries. "Gold will at last reveal among those sands after enough efforts on fossicking". We are confident that when winter comes the spring cannot be far away.

"Knowing of our deficiency stimulates us to self-examination; and discovery of our confusion leads us to self-improving". "Fully apply the Scientific Outlook on development, accelerate the transformation of economic development, and speed up the economic restructuring". This guiding concept also serves as guidance to China's steel industry.

The first ten years of the 21st century is the period of the fast development of China's steel industry and the first leap to a big steel country. The second ten years will be the period for China's steel industry to complete the transformation and the second leap to become a strong steel country. China's steel industry is at a historic turning point. To go out of the current predicament, the steel industry must fit itself into the overall background of transformation, and closely follow the national industry structure upgrading, especially the downstream manufacturing industries' upgrading and transformation. This means higher and new requirements for the industry regarding its product type, quality, performance and its speed in response and service support. The steel industry must take initiative in changing its traditional extensive development by simply adding more elements, to the new creation-driven development mode, realizing the leap from a big steel country to a strong steel country.



Profile of the Company and Main Affiliates

Baosteel Co., Ltd.

Baoshan Iron & Steel Co., Ltd. (shortened as "Baosteel Co., Ltd.," "Baosteel" or "the Company" in this report) specializes in producing high-tech and high value added steel products. Baosteel is a major supplier in the Chinese market of automobile steel, shipbuilding steel, steel for oil/gas mining and transmission, household appliance steel, electrical appliance steel, boiler and pressure vessel steel, steel for food and beverage packaging, metalwork steel, and high-grade steel for construction use. Baosteel also exports products to over 40 countries and regions, including Japan, South Korea, Europe and the USA.

Main products of the company are recognized by the international authoritative institutions. They received attestation and reexamination by BSI ISO9001 and ISO/TS16949, obtained the US API logo and Japanese JIS certificate. Baosteel's products have also been recognized by ship classification societies in China, French, USA, UK, Germany, Norway and Italy.

The company has considerable strengths in R&D and endeavors to develop new technologies, new products, new processes and new equipment, which serve as an eternal powerhouse for growth of the company.

The company attaches much importance to environmental protection, pursues sustainable development and is the first in the Chinese metallurgy to have passed the GB/T23331-2009, the national energy management system authentication. It is also one of the first "National Environment-friendly Enterprises", "Clean Production and Environment Friendly Enterprises" in the Chinese steel industry, and the "China Green Companies".

Companies with Controlling or Minority Interests

1 Shanghai Meishan Iron & Steel Co., Ltd.

Shortened as Meisteel in this report.

Registered capital and interest held:

As of 31 December 2012, Meisteel had a registered capital of CNY7.081 billion, and the company had a 77.04% interest in Meisteel.

Assets and profit: As of 31 December 2012, Meisteel had total assets of CNY36.60 billion and net assets of CNY11.19 billion, and generated a net profit of CNY 1.17 billion this year.

Scope of business: Ferrous metal smelting and calendaring and sale.

2 Baosteel-NSC/Arcelor Automotive Steel Sheets Co., Ltd.

Shortened as BNA in this report.

Registered capital and interest held:

As of 31 December 2012, the company had a 50% interest in Baosteel Nippon, and Baosteel Nippon had a registered capital of CNY 3 billion.

Assets and profit: As of 31 December 2012, Baosteel Nippon had total assets of CNY 4.72 billion and net assets of CNY 3.56 billion, and generated a net profit of CNY 160 million this year.

Scope of business: Production and sale of cold-rolled steel plates, hot-dip galvanized steel plates and electro-galvanized steel plates used for automobiles and auto parts, and auxiliary businesses in relation to the foregoing activities.

3 Yantai Lubao Steel Tube Co., Ltd.

Shortened as Lubao Steel Tube in this report.

Registered capital and interest held:

As of 31 December 2012, the company had a 79.82% interest in Lubao Steel Tube, and Lubao Steel Tube had a registered capital of CNY 100 million.

Assets and profit: As of 31 December 2012, Lubao Steel Tube had total assets of CNY0.94 billion and net assets of CNY0.73 billion, and generated a net profit of CNY 40 million this year.

Scope of business: Processing and sale of seamless steel tubes, mainly seamless steel tubes for structures, low and medium pressure boilers, fluid transmission, hydraulic supports, high-pressure boilers, petroleum equipments, geological drilling, petroleum raw pipes and oxygen bottles.

4 Baosteel Huangshi Coated & Galvanized Sheet Co., Ltd.

Shortened as Huangshi Coated & Galvanized in this report.

Registered capital and interest: As of 31 December 2012, the company had a 58.45% interest in Huangshi Coating, and Huangshi Coating had a registered capital of CNY 145 million.

Assets and profit: As of 31 December 2012, Huangshi Coated & Galvanized had total assets of CNY 680 million and net assets of CNY 330 million, and generated a net profit of CNY10 million this year.

Scope of business: Production and sale of pickled sheets, cold-rolled coils, aluminum galvanized steel plates, color-coated steel plates and related galvanized steel products.

Appendix

► Profile of the Company and Main Affiliates

5 Shanghai Baosteel International Economic & Trading Co., Ltd.

Shortened as Baosteel International in this report.

Registered capital and interest

held: As of 31 December 2012, the company had a 100% interest in Baosteel International, and Baosteel International had a registered capital of CNY 2.25 billion.

Assets and profit: As of 31 December 2012, Baosteel International had total assets of CNY 36.00 billion and net assets of CNY 12.31 billion, and generated a net profit of CNY 1.33 billion this year.

Scope of business: Import and export of commodities and technologies approved by the state for own account and for customers' account; import of steels and scraps, processing with imported materials and three types of processing plus compensation trades.

6 Shanghai Baosight Software Co., Ltd.

Shortened as Baosight Software in this report.

Registered capital and interest held:

Baosight Software had a registered capital of CNY 0.34 billion. In the end of 2012, the company had 55.5% of shareholding of Shanghai Baosight.

As of 31 December 2011, Shanghai Baosight had a total asset size of CNY 3.22 billion, with a net asset of CNY 1.52 billion, and reporting a net profit of CNY 0.26 billion.

Scope of business: Research, design, development, making and integration of computer, automation, network communication system and software and hardware products.

7 Shanghai Baosteel Chemical Co., Ltd.

Shortened as Baosteel Chemical in this report.

Registered capital and interest held:

As of 31 December 2012, the company had a 100% interest in Baosteel Chemical, and Baosteel Chemical had a registered capital of CNY 2.1 billion.

Assets and profit: As of 31 December 2012, Baosteel Chemical had total assets of CNY 5.73 billion and net assets of CNY 4.06 billion, and generated a net profit of CNY 0.55 billion this year.

Scope of business: Production and sale of chemical raw materials and products; technical development, technical transfer; technical consultation and technical services in chemical industry; export of self-made products.

8 Nantong Baosteel Iron & steel Co., Ltd.

Shortened as Baotong Steel in this report.

Registered capital and interest

held: As of 31 December 2012, the company had 95.82% of shareholding of Nantong Baosteel Steel and Iron Co., Ltd., and Baotong Steel had a registered capital of CNY 621 million.

Assets and profit: As of 31 December 2012, Baotong Steel had total assets of CNY 2.79 billion and net assets of CNY 0.63 billion, and generated a net profit of CNY 0.19 billion this year.

Scope of business: Production and sale of deformed steel bars, round steel, structural sections, semi-finished steel products (including billets and ingots) and other iron/steel products and by-products.

9 Baosteel Group Finance Co., Ltd.

Shortened as Baosteel Finance Co. in this report.

Registered capital and interest held:

As at the end of 2012, the company had 62.1% of shareholding of Baosteel Group Finance Co., Ltd. and the Finance Co. had a registered capital of RMB 1.1 billion.

Assets and profit: As of 31 December 2012, Baosteel Finance Co. had total assets of CNY 11.20 billion and net assets of CNY 1.57 billion, and generated a net profit of CNY 0.17 billion this year.

Scope of business: Taking deposits from members, granting loans to members, internal transfer settlement between members and relevant settlements, entrusted loans and investments between members, and inter-bank lending.

10 Yantai Baosteel Pipe Co., Ltd.

Shortened as Yantai Pipe in this report.

Registered capital and interest held:

As at the end of 2012, the company owned 80% of Yantai Baosteel Steel Pipe Co., Ltd., and the rest owned by Lubao Steel Pipe. Yantai Pipe had a registered capital of CNY 2 billion.

Assets and profit: Yantai Pipe is under construction. As of 31 December 2012, Yantai Pipe had total assets of CNY 4.48 billion and net assets of CNY 1.35 billion, and generated a net profit of CNY 0.24 billion this year.

Scope of business: Production, processing and sale of steel tubes, auxiliary products and byproducts; technical consultation services relating to steel tube rolling, warehousing, import and export.

11 Overseas Subsidiaries

As of 31 December 2012, the company had subsidiaries in the USA, Japan, German, Singapore and Hong Kong. They played an important role in expanding the company's marketing and procurement network and improving its competitiveness in international markets.

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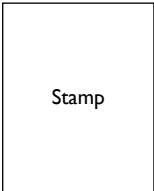
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