



# 2011 中钢集团 可持续发展报告 Sustainability Report

报告说明 Report Specification

**可靠性保证：**中国中钢集团公司保证 2011 可持续发展报告信息的真实性、准确性和完整性，并努力做到兼顾内容的实质性和平衡性。我们期待通过发布可持续发展报告等形式，与利益相关方加强沟通，建立互信，共同创造可持续的未来。

**报告时间范围：**2011 年 1 月 1 日——12 月 31 日，部分内容超出此范围。

**报告组织范围：**中国中钢集团公司总部以及各下属公司、分支机构。

**报告发布周期：**此报告是中钢集团发布的第五份年度可持续发展报告。

**报告数据说明：**此报告所引用的 2011 年财务数据为快报统计数，可能与最终数据略有差异，请以经审计的财务报告为准；其他数据来源于公司正式文件和统计报告。

**报告参考标准：**国务院国资委《关于中央企业履行社会责任的指导意见》  
中国社科院经济学部社会责任研究中心《中国企业社会责任报告编制指南》  
全球报告倡议组织 GRI《可持续发展报告指南（2006）》

**报告形式：**纸质版、网络版

**报告语言：**中文、英文

为便于表述和方便阅读，“中国中钢集团公司”在本报告中也以“中钢集团”、“中钢”、“公司”和“我们”表示。

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**Reliability Assurance:** Sinosteel Corporation hereby assures the authenticity, accuracy and completeness of the 2011 Sustainability Report, and strives to take into account the substantiality and balance of the content. We look forward to enhancing the communication with stakeholders, establishing the mutual trust and jointly creating a sustainable future with the stakeholders through issuing the Sustainability Report and other approaches.

**Reporting Period:** January 1, 2011 - December 31, 2011, and part of contents are beyond this range.

**Reporting Scope:** Sinosteel Corporation headquarters and all its subsidiaries and branches.

**Report Cycle:** This report is the fifth annual Sustainability Report released by the Sinosteel Corporation.

**Report Data Specification:** 2011 financial data referred in this report is the statistics from the flash report and may be slightly different with the final data; the audited financial report shall prevail; other data are based on the Company's official documents and statistical reports.

**Reference Standard:** Principle of Central Enterprises in Performing Social Responsibility issued by the SASAC of the State Council  
Guide for Preparation of the Social Responsibility Report of Enterprises in China by the Research Center for Corporate Social Responsibility of Chinese Academy of Social Sciences  
Sustainability Reporting Guidelines (2006) by the Global Reporting Initiative (GRI)

**Reporting Form:** Paper version and online version

**Report Language:** Chinese and English

For the convenience of expression and reading, the "Sinosteel Corporation" may be expressed as "Sinosteel Group", "Sinosteel", "the Company" and "We".

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# 总裁致辞

## From the President



履行企业社会责任是时代发展对企业提出的必然要求，也是企业提升自身竞争力、实现可持续发展的重要途径。作为中央企业，中钢集团紧紧围绕做强做优，打造具有核心竞争优势的生产性服务商、优秀跨国企业集团的目标，坚持履行社会责任与促进改革发展相结合，把履行社会责任作为提高企业综合竞争力的重要内容，持续推动经济、环境与社会可持续发展，努力成为依法经营、诚实守信、节约资源、保护环境、以人为本、创建和谐的企业，着力实现速度规模与质量效益相统一，发展水平和资源环境相协调，为经济社会全面发展做出积极贡献。

**战略引领，科学发展。**以科学发展为主题，以加快转变经济发展方式为主线，以国资委的战略部署为指针，中钢集团立足为钢铁工业和钢铁生产企业及战略性新兴产业提供综合配套，系统集成服务的定位，狠抓当期经营，突出效益导向；整合内部资源，优

化集团管控；明晰战略内涵，实现创新驱动；大力推进商业模式创新、科技创新、企业管理创新，强化精益服务，借助各方合作共赢之力，提升价值创造能力，努力履行好企业的经济责任。

**节能减排，绿色发展。**中钢集团依托自身在节能环保、循环经济、采矿冶炼等方面的科技研发优势，坚持资源节约型和环境友好型发展，推进降本增效、创新创效向全系统、全过程、全方位和全员纵深拓展，加快实施已有的科研成果转化，在采矿、冶炼、物流等各个环节积极推进环境保护工作，建立健全环保管理体系，积极探索循环经济绿色发展新模式，为钢铁行业和钢铁生产企业提供全面的绿色服务，促进产业链上下游的低碳发展，切实履行好企业的环境责任。

**以人为本，和谐发展。**中钢集团坚持与员工共同成长，为员工发挥创造性、积极性提供平台；坚持与社区和谐共进，支持参与社区公益事业。特别是在经济全球化的背景下，致力于做负责任的中国企业，赢得当地社会的信任支持，努力实现互利共赢。通过与利益相关方共享企业发展成果，不断追求经济效益与社会效益的统一，自觉履行好企业社会责任。

发展引领未来，责任凝聚力量。中钢集团愿与海内外各界同仁加强交往，扩大合作，善尽责任，共赢发展，为开创更加美好的未来而努力奋斗。

贾宝军  
中国中钢集团公司总裁

Fulfilling the corporation's social responsibilities is an inevitable demand of the era for the enterprises, and also an important way for enterprises to enhance their own competitiveness and achieve sustainable development. As a central enterprise, Sinosteel, by focusing on the goals of being strong and excellent, of building a production-related service provider with a core competitive advantage and an excellent multinational conglomerates, adheres to the combination of fulfilling the social responsibilities and promoting reform and development, treats fulfilling the social responsibilities as the important content of improvement of the comprehensive competitiveness of the enterprise, constantly promotes the sustainable development of economy, environment and the society and strives to become an enterprise operating in accordance with the law, being honest and trustworthy, conserving resources, protecting the environment, people-oriented and creating harmony, striving to realize the consistence between the speed & size and quality & efficiency, the matching between the development level and the resources & the environment to make positive contributions to the economic and social development.

**Led by the strategies and develop scientifically.** Taking the scientific development as the theme, the acceleration of the transformation of economic development mode as the main line, and the strategic planning of the SASAC as the guidance, Sinosteel is positioned to provide the comprehensive supporting and the systematic integration services for the iron and steel industry, the iron and steel production enterprises and the strategic emerging industries, pays close attention to the current business and highlights the benefit orientation; integrates the internal resources, optimizes the Group's management and the control; clarifies the strategic content and realizes the innovative drive; vigorously promotes the innovation of business model, technological innovation, enterprise management innovation, strengthens the delicate service, by virtue of the win-win forces in cooperation with all parties, to enhance the value-creating ability and strive to fulfill the economic responsibilities of a leading enterprise.

**To save energy & reduce emission and develop environment friendly.** By relying on its own R&D advantages in energy saving and environmental protection, recycling economy, mining and smelting, Sinosteel adheres to the resource-saving and

environment-friendly development, promotes the cost-reduction and efficiency-increase, innovation and profit-making to develop deeply toward the entire system, the whole process, all dimensions and the whole employees, accelerates the transformation of existing scientific & research achievements; it also actively promotes the environmental protection in all aspects of mining, smelting, logistics and so on, establishes a sound environmental management system, and actively explores the green development new model of the recycling economy, providing a full range of green service for the steel industry and steel production enterprises to promote the low-carbon development of the upstream & downstream of the industry chains and effectively fulfill the environmental responsibilities of a good enterprise.

**People-oriented, harmonious development.** Sinosteel insists to grow together with employees and provides platform for employees to give play their creativity and enthusiasm; adheres to maintain a harmonious relation with the community and supports the participation in community welfare undertakings. Especially in the context of economic globalization, the enterprise is committed to be a responsible Chinese company to win the trust and the support of the local community and strive to achieve mutual benefit and win-win situation. Through the sharing of the outcome of the enterprise development with stakeholders, the enterprise constantly pursues the unity of the economic benefits and social benefits and conscientiously fulfills the social responsibilities of a good enterprise.

Advancement leads to better future, responsibility gathers cohesive strength. Sinosteel is willing to strengthen the exchanges and contacts with counterparts from all walks of life both at home and abroad, expanding cooperation, fulfilling the responsibilities, develop in win-win situation and strive to create a brighter future.

Jia Baojun  
President of Sinosteel Group



# 社会责任工作绩效对比表

## Comparison Table of CSR Performance

经济 Economy		
项目 Item	2010 - 2011 表现 Performance of 2010-2011	对比 Comparison
 <b>经营业绩</b> Business Performance	虽受外部经济环境严峻影响，2011 年的销售收入和资产总额仍然保持稳定 Although significantly affected by the external economic environment, the sales revenue and the total assets in 2011 remained stable.	=
 <b>责任采购</b> Responsible Procurement	规范供应商管理和招标工作 进一步规范绿色采购 积极开发海外资源，促进国家资源安全 Standardize supplier management and tender operation Further promote green procurement Actively develop overseas resources and promote national resources security	=
 <b>优化物流</b> Logistics Optimization	优化物流经营模式 加强集团仓储业务和库存货物监管 Optimize the business model of logistics Strengthen the Group's warehousing operations and inventory goods supervision and control	=
 <b>安全生产</b> Safe Production	进一步完善安全体系 健全集团安全生产 0123 模式 开展安全培训和相关活动 Further improve the security system Improve the 0123 mode of safety production of the Group Carry out safety training and related activities	=
 <b>责任销售</b> Responsible Sales	注重产品质量改善 加强客户关系管理 加强业务协同 Focus on product quality Improve and strengthen the customer relationship management Enhance the business collaboration	▲
 <b>科技创新</b> Technological Innovation	加大支持和组织科技创新项目 Further support and organize the technological innovation projects	▲
 <b>风险管理</b> Risk Management	开展“制度执行年”活动 进一步完善风险管理体系 内部审计和效能监察进一步加强 Carry out the activity of "System Implementation Year" Further improve risk management Further strengthen internal audit and efficiency supervision	▲
 <b>信息化</b> Informatization	ERP 第四期项目建设 完成资金系统项目建设 数据级灾备系统建设 Carry out ERP Phase IV project construction Complete the fund system Project construction Complete the data-level disaster recovery system construction	▲

环境 Environment		
项目 Item	2010 - 2011 表现 Performance of 2010-2011	对比 Comparison
 <b>循环经济</b> Circular Economy	大力推行“对标挖潜” 重视循环经济基础理论研究 加强循环经济成果的产业化 Vigorously promote "tapping potentials by benchmarking" Pay attention to the research of the circular economy foundation theory Enhance the industrialization of the circular economy achievement	▲
 <b>节能减排</b> Energy Saving and Emission Reduction	落实节能减排目标责任制 加强节能减排绩效考核 加大温室气体等关键指标的减排力度 Implement the target responsibility system for energy conservation and emission reduction Strengthen the performance appraisal for energy conservation and emission reduction Increase the degree of the emission reduction of the greenhouse gases and other key indicators	▲
 <b>生态保护</b> Ecological Conservation	严格执行“环保”三同时 进一步规范项目环评制度 扩大厂区的绿化面积 统筹矿区的生态保护 强化生态环境的开发和调研 Strictly implement the three simultaneities of environment protection Further standardize the project environmental impact assessment system Increase the greening area in the plant area Make uniformed planning of the mining area for ecological protection Strengthen the development and research of ecological environment	=

社会 Society		
项目 Item	2010 - 2011 表现 Performance of 2010-2011	对比 Comparison
 <b>员工</b> Employee	重视员工的身心健康管理 强调良好的企业文化建设 为员工职业成长创造良好氛围 Attach importance to employees' physical and mental health management Emphasize the sound corporate culture construction Create a favorable atmosphere for employees' career growth	▲
 <b>社区</b> Community	开展社区共建调查 支持所在社区活动 Carry out survey on community joint construction Support the activities of local community	▲
 <b>公益</b> Public Welfare	积极开展社会公益捐赠 Actively participate in the social welfare donations	▲
<b>社会责任工作</b> Social Responsibility Operation	开展社会责任培训 参加国资委中央企业社会责任推进课题 Carry out trainings on social responsibilities Participate in the SASAC central enterprise social responsibility advancing subject	▲

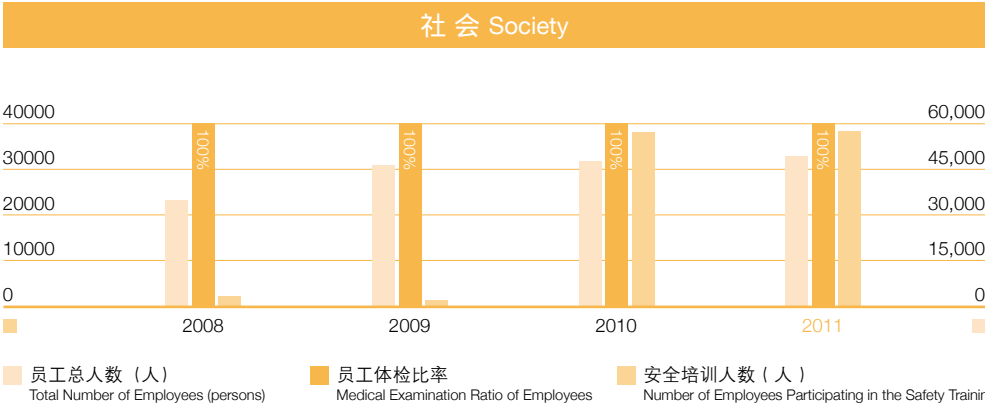
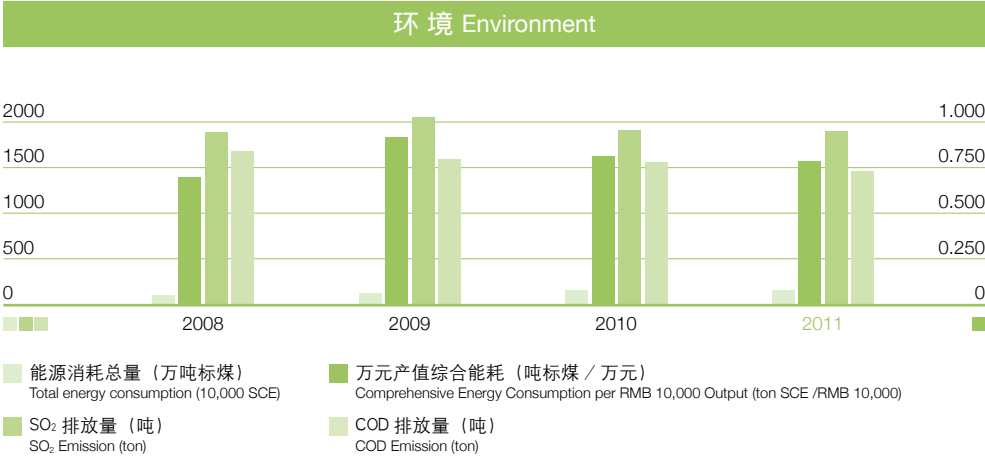
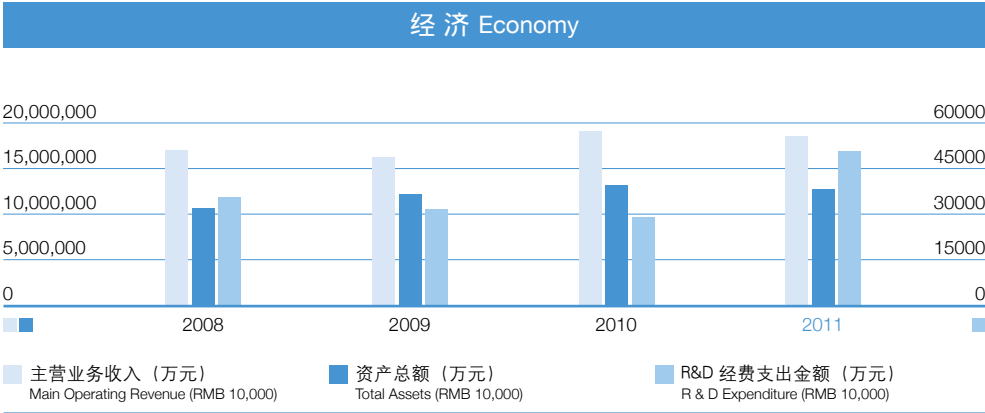
▲ 代表较去年有所上升 Representing the improvement compared to the last year    = 代表与去年基本持平 Representing no change compared to the last year





# 关键数据表

## Key Performance Datasheet



# 公司简介

## Company Profile

中国中钢集团公司（简称中钢集团，英文简称 sinosteel）是国务院国资委监管的中央企业。所属二级单位 86 家，其中：境内 63 家，境外 23 家。中钢集团主要从事冶金矿产资源开发与加工；冶金原料、产品贸易与物流；相关工程技术服务与设备制造，是一家为钢铁工业和钢铁生产企业及相关战略性新兴产业提供综合配套、系统集成服务的集资源开发、贸易物流、工程科技、设备制造、专业服务为一体的大型跨国企业集团。

Sinosteel Corporation (abbreviated as Sinosteel) is a central enterprise under the administration of the State-owned Assets Supervision and Administration Commission of the State Council. There are 86 subsidiaries under the administration of Sinosteel, among which 63 are in China and 23 abroad. Sinosteel is mainly engaged in developing and processing of metallurgical mineral resources, trading and logistics of metallurgical raw materials and products, and related engineering technical service and equipment manufacture. It is a large multinational conglomerate that integrates resource development, trade & logistics, engineering project and science & technology, equipment manufacturing and specialized service, providing comprehensive auxiliary and systematic integration service for steel industry, steel production enterprises and relevant strategic emerging industries.

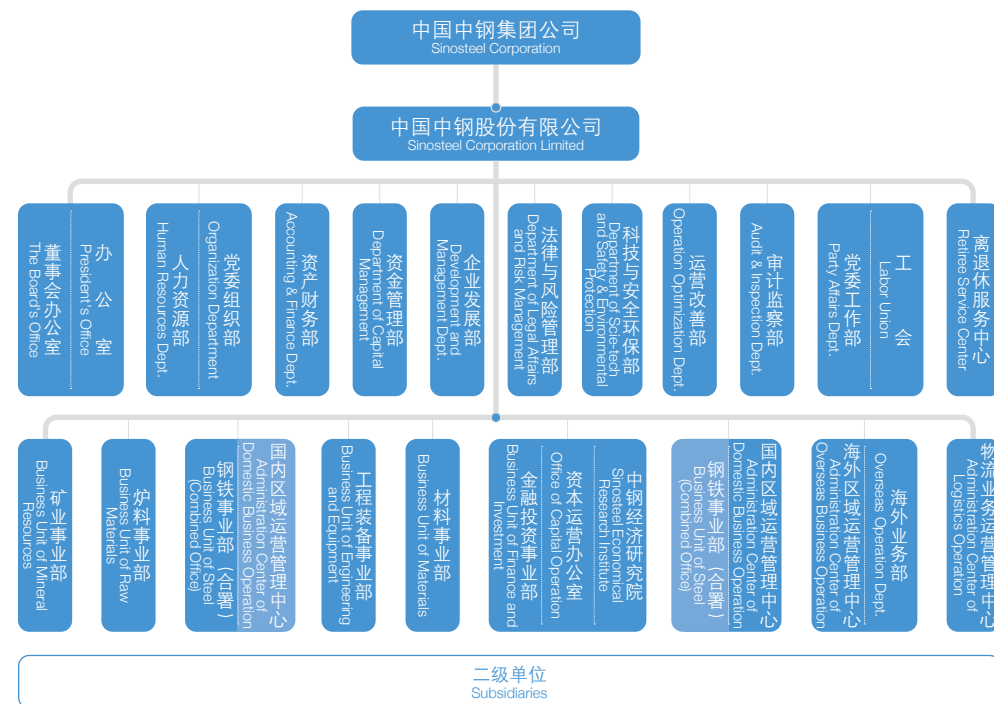




## 业务布局 Business Distribution

中钢集团战略表述：立足钢铁、适度多元，综合配套、系统集成，成为在矿产资源开发与加工，冶金原料、产品贸易与物流，相关工程技术服务与装备制造以及相关新材料和金融服务等具有核心竞争力的生产性服务商，打造具有国际竞争力的优秀跨国企业集团。

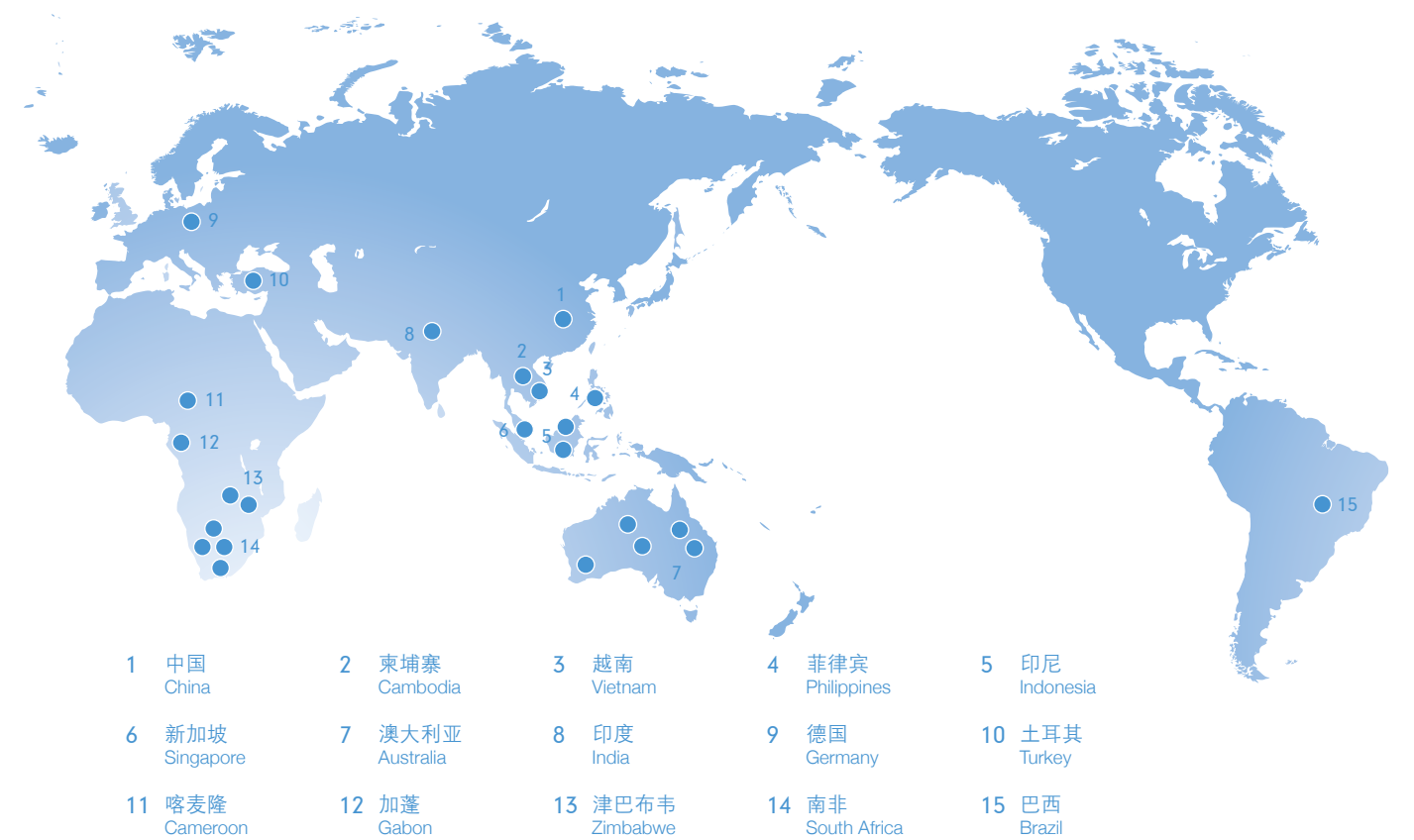
The expression of Sinosteel strategies: To develop reasonable diversification based on iron & steel business, and to integrate capabilities with comprehensive facilities, endeavoring to be a production-oriented service provider with global core competitiveness in the fields of mineral resource development and processing, trade and logistics of metallurgical raw materials and products, related technical services and equipment manufacturing, new materials and financial services.



## 全球运营 Global Operation

作为国内最早“走出去”开展国际经济技术合作的大型国有企业，中钢集团一直秉承国内外两种资源并重、境内外两个市场并举的经营发展理念，通过境外投资、境外加工贸易以及对外工程承包等多种方式，加速推进国际化进程。

As one of the first large state-owned enterprises implementing international economic and technological cooperation by "Going Global", Sinosteel Corporation adheres to the operation and development philosophy of valuing both domestic and foreign resources, and developing both markets home and abroad. By overseas investment, overseas processing trade and foreign project contracting, the Group boosts the process of internationalization.



## 2011 年所获重大奖项 Major Awards of Sinosteel in 2011

中钢集团荣列“2011 中国 100 大跨国公司及跨国指数”第**19**位  
Sinosteel Corporation Ranks 19th in Assessment of 2011 China Top 100 Multinational Companies and Transnationality Index.

中钢集团荣获“2011 中国最具创新力企业社会责任报告”奖  
Sinosteel Corporation Won 2011 China the Most Innovative Corporate Social Responsibility Report.

中钢集团荣获“2011 节能中国十大贡献单位奖”  
Sinosteel Won 2011 China Energy Conservation Top 10 Contribution Units.

中钢设备公司被评为“2011 年度境外成套工程 AAA 级信用企业”  
Sinosteel Equipment & Engineering Co., Ltd. was Granted 2011 Overseas Turnkey Project AAA Grade Credit Enterprise.

中钢招标公司荣获“2011 年度十大最具竞争力招标机构”和“招标代理机构诚信创优 5A 级先进单位”称号  
Sinosteel Tendering Co., Ltd. Won 2011 Top 10 Competitive Tendering Units and the Title of Tendering 5A Grade Credit Unit.



# 可持续发展治理

## Governance of Sustainable Development

### 可持续发展理念

#### Concept of Sustainable Development

在服务于钢铁工业和钢铁生产企业的过程中，始终兼顾利益相关方的利益，持续提升价值创造，不断打造绿色钢铁，坚定推进社会和谐。

On the course of serving the iron & steel industry and steel production enterprises, the Company always takes into account the interests of stakeholders, continues to enhance value creation; in addition, Sinosteel constantly builds a green steel firm and firmly promotes the social harmony.

### 价值产业链

#### Value-added Industry Chain

持续提升价值创造。这是可持续发展的经济维度，指在中钢的发展过程中，注重为股东创造价值，同时兼顾银行、政府、客户、供应商等利益相关方的利益；持续提升整个产业链的价值创造，以实现中钢的基业长青。

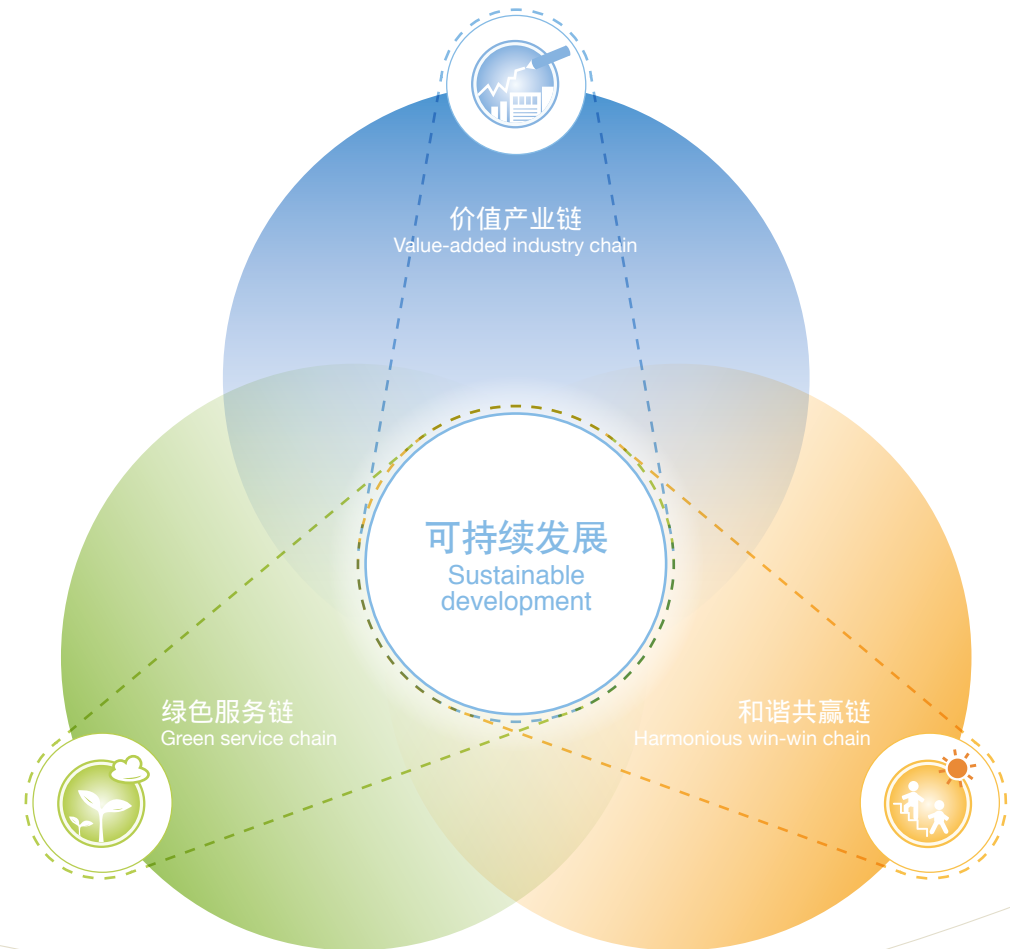
Continue to enhance value creation. This is the economic dimension of sustainable development, which means, in the development process of Sinosteel, to pay attention to creating value for shareholders, while taking into account the interests of the banks, government, customers, suppliers and other stakeholders; it continues to enhance the value creation of the whole industry chain to make the course of Sinosteel last forever.

### 绿色服务链

#### Green Service Chain

不断打造绿色钢铁。这是可持续发展的环境维度，指在中钢的发展过程中，注重环境保护，发展低碳经济，提升上下游企业的环保水平，不断致力于钢铁产业链的绿色制造，以促进中钢与环境的和谐发展。

Continue to build a green steel firm. This is the environmental dimension of sustainable development, which means, in the development process of Sinosteel, to focus on the environmental protection and the development of low-carbon economy, and the enhancement of the level of environmental protection of the upstream and downstream enterprises. The company is constantly committed to the green manufacturing on the steel industry chain to promote harmonious and coordinated development of Sinosteel and the environment.



### 和谐共赢链

#### Harmonious Win-Win Chain

坚定推进社会和谐。这是可持续发展的社会维度，指在中钢的发展过程中，始终注重企业运营对员工、社区等利益相关方整体福利水平的提升，以推动中钢与社会的和谐共进。

Firmly promote social harmony. This is the social dimension of sustainable development, which means, in the development process, Sinosteel always pay close attention to the overall well-being enhancement of the business operations to employees, communities and other stakeholders to promote the harmonious development between Sinosteel and the community.



## 可持续发展治理维度

### Governance Dimensions of Sustainable Development

现阶段中钢的社会责任工作维度可表现为“四个层面”  
Sinosteel's social responsibility dimensions at this stage can be represented in the "four hierarchies"

### 对政府

#### With respect to government

遵守法律法规，促进国家资源安全。中钢在海内外的所有合作，都严格按照业务所在国家和地区政府以及政府有关部门的法律、法规要求，严格履行企业对政府的承诺。这是中钢集团在全球任何国家和地区最基本的责任。

同时，作为最早实施“走出去”战略的中央企业，中钢始终承担着国家资源安全的战略责任，致力于为国内钢铁企业提供安全、稳定、可靠的矿产资源，通过深化国际合作，促进世界经济的繁荣与发展。

Comply with laws and regulations to promote the security of national resources. All cooperation relations of Sinosteel at home and abroad are strictly in accordance with the laws and regulatory requirements of the government and relevant government departments of the countries or the regions where the business is located, and strictly fulfill the commitment of business to government. This is the basic responsibility of Sinosteel at any countries and regions in the world.

At the same time, as a central enterprise that is the first to implement the "Going Global" strategy, Sinosteel always assumes the strategic responsibility to safeguard the national resources, and is committed to providing domestic steel enterprises with safe, stable and reliable mineral resources and promoting the prosperity and development of the world economy through deepening international cooperation.

### 对社会

#### With respect to the society

诚信经营，保护环境，贡献社区。一个公司在不同的国家和地区开展业务，就要对当地的社会践行承诺，履行好多方面的社会责任。

Operate sincerely, protect the environment and contribute to the communities. When a company is doing business in different countries and regions, it is necessary to fulfill its promises to the local community and perform a variety of social responsibilities.

### 对企业

#### With respect to the enterprise

追求可持续发展。假如企业没有发展的前景，没有发展的基础，根本谈不上履行社会责任，因为自身没有这种履行社会责任的能力。因此，企业的可持续发展是履行社会责任的一个非常重要的前提。

Pursue sustainable development. If a company does not have the prospects of development and the basis for the development, it is out of the question to fulfill its social responsibilities, because it does not have the ability to fulfill such social responsibilities. Therefore, the sustainable development of enterprises is a very important prerequisite to fulfill their social responsibilities.

### 对员工

#### With respect to the employees

保障权益，共同发展。在企业内部履行相应的社会责任就是要保障员工的合法权益，给员工打造能发挥其创造性和积极性的平台，与员工共同成长。

Protect their interests, and gain common development. To fulfill the corresponding social responsibilities within the enterprise is to protect the legitimate rights and interests of employees, to create for employees a platform that can give play their creativity and initiatives so as to grow together with employees.







## 利益相关方期望 Stakeholder expectations

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
国资委 SASAC	国有资产的保值增值 Maintenance and appreciation of state-owned assets	下达相关的政策法规、规章制度 Issue related policies and laws, rules and regulations
	完善公司治理结构 Improve the corporate governance structure	工作会议 Work meetings
	防范经营风险 Guard against operational risks	定期汇报 Regular reporting
		业绩考核 Performance evaluation
		主营业务收入 Main operating revenue
		利润总额 Total profits
		净资产收益率 Return on net assets
		国有资产保值增值率 State-owned assets value preservation and appreciation rate

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
政府 Government	国家资源安全 National resource security	制定地方政策规章 Develop local policies and regulations
	遵纪守法 Legal compliance	拜访 Visits
	经济、环境、社会和谐发展 Harmonious development in economy, environment and society	定期会晤 Regular meeting
		工作会议 Work meetings
		税收总额 Total tax revenues
		就业机会 Employment opportunities
		节能目标 Energy saving goals
		减排目标 Emission reduction goals

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
战略合作伙伴 Strategic partners	优势互补 Complement each other's advantages	签订战略合作协议 Sign strategic cooperation agreements
		合同协议执行情况 Execution of the contracts and agreements

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
科研机构 Research institutions	协同创新 Collaborative innovation	高层互访 High-level mutual visits
		项目合作 Project cooperation
		科研经费投入 Investment of research funding

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
金融机构 Financial institutions	提高创造价值的能力 Improve the ability to create value	会议商讨 Conference and discussion
		访问座谈 Visit and discussion
		销售收入增长率 Sales growth rate
		资本回报率 Return on capital

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
员工 Employees	权益保障 Protect the rights and interests	职工代表大会 Workers' Congress
	职业发展 Career development	发展工会组织 Develop labor union organizations
	价值实现 Value realization	职工满意度调研 Survey of workers satisfaction
		座谈会 Seminar
		薪酬水平 Compensation level
		员工满意度 Employee satisfaction
		员工忠诚度 Employee loyalty
		员工流失率 Staff turnover rate
		员工培训的投入 Investment in staff training
		劳动合同签订率 Employment contract signing ratio

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
供应商 Suppliers	遵守商业道德 Abide by the business ethics	签订合同协议 Sign contracts & agreements
	强化双方合作 Strengthen bilateral cooperation	企业 ERP 系统 Enterprise ERP system
	遵守责任要求 Comply with responsibility requirements	供应商关怀活动 Care activities on suppliers
		供应商第三方满意度调研 Supplier's third-party satisfaction survey
		合同履行率 Contract performance ratio
		交货准确率 Goods delivery accuracy
		供应商价格执行率 Supplier price implementation ratio
		供应商满意度 Supplier satisfaction

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
客户 Clients	提供安全可靠的产品 Provide safe and reliable products	客户关系管理 Customer relationship management
	注重客户关怀 Focus on customer care	客户关怀活动 Customer care activities
	改进服务质量 Improve service quality	客户第三方满意度调研 Customer's third-party satisfaction survey
		合同履约率 Contract fulfillment ratio
		客户满意度 Customer satisfaction

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
社区 Community	保护社区环境 Protect the environment of the community	社区调研 Community research
	促进社区繁荣 Promote community prosperity	文明共建活动 Activities of co-building of civilization
	创造社区和谐 Create a harmonious community	公益捐赠 Public welfare donations
		社区居民满意度 Satisfaction of the community residents
		公益捐赠额 Amount of public welfare donations
		员工志愿者人次 Number/times of employee volunteers

期望目标 Expectations	互动沟通方式 Interactive means of communication	主要指标 Key Indexes
NGO	发挥企业模范表率作用 Give play to the exemplary role of the enterprise	年会、活动 Annual Meetings, activities
	推动可持续发展各项工作 Promote tasks relevant to sustainable development	参加研讨 Participate in seminars
		参与活动频率 Frequency of participating in the activities
		沟通次数 Number of communication times



## 2011 社会责任推进历程

### The Promotion Course of Social Responsibility in 2011

公司不断完善社会责任工作体系，2011 年正式建立起社会责任管理两级工作体系，明确社会责任工作对口部门和联系人，为深入推动社会责任工作奠定基础。

The Company is constantly improving the working system of the social responsibilities, and formally established the two levels of working system of social responsibility management in 2011, clearly defined the responsible departments and contact persons of the social responsibility work, laying a foundation for further promotion of social responsibility work.

继续完善社会责任指标体系，撰写并发布《2010 可持续发展报告》，被评为社科院社会责任研究中心四星级优秀报告，并荣获 2010 联合国全球契约典范报告奖，这是集团报告连续三年获此殊荣。

In continuing to improve the social responsibility index system, Sinosteel published the Sustainability Report 2010, which was rated as the four-star-level excellent report by the Research Center for Corporate Social Responsibility of Chinese Academy of Social Sciences, and won 2010 United Nations Global Contract Model Report Award, which is the three consecutive year for the Group to win such award.



2010

2011.7.1

2011.7.22

7 月 1 日下午，中钢集团在公司总部隆重举办了“党的光辉照我奋进——中钢集团庆祝建党九十周年歌咏大会”。此次歌咏大会以讴歌中国共产党成立 90 周年走过的光辉历程为主线，热情歌颂了中国共产党从成立之初到改革开放建设小康社会所取得的伟大成就。一首首催人奋进的歌曲，一段段澎湃激昂的旋律，抒发着热爱党、热爱祖国、热爱社会主义的赤子情怀，唱响共产党好、社会主义好、伟大祖国好、各族人民好、改革开放好的主旋律，表达了中钢人对党、对祖国的美好祝愿和奋发向上、拼搏进取的豪情壮志。

In the afternoon of July 1, Sinosteel Corporation ceremoniously held "Party's Glory Enlightens My Endeavour-Sinosteel Singing Gala in Celebration of 90 Anniversary of Founding of CPC" at the headquarters of the Company. The singing gala took the eulogizing of the glorious history of CPC's past 90 years since its founding as the main line, passionately praised the CPC's great achievements from the beginning of its establishment to the reform and opening up for the construction of well-off society. The inspiring songs and passionate melodies expressed people's pure feeling of loving the Party, loving the motherland, loving the socialism, highlighting the theme that praises the Communist Party, the socialism, the great motherland, the people of all nationalities and reform & opening- up to express Sinosteel people's best wishes for the CPC & the motherland and the lofty sentiments and aspirations of striking to make progress and hard work.

7 月 22 日上午，中钢集团党委副书记邵殿祥接见了来京参加夏令营活动的四川省广元市三所中钢希望小学师生代表一行。组织学生到北京参加夏令营，既是社会实践活动、开阔视野，也是进行爱国主义教育。中钢集团希望通过这样的活动，让师生代表将北京之行的感受、见闻带回去，把希望和决心带回去，激励更多的孩子立志成长成才，长大后为家乡的发展、祖国的繁荣作出自己的贡献。

In the morning of July 22, Shao Dianxiang, deputy party secretary of Sinosteel Corporation met the delegation of teachers and students from three Sinosteel Hope Primary Schools in Guangyuan city, Sichuan province, who came to Beijing to attend the summer camp activities. Organizing students to participate in summer camp in Beijing is not only a social practice that can broaden their horizons, but also a patriotic education activity. Sinosteel Corporation hoped the delegation of teachers and students can bring what they saw and heard in Beijing back to their hometown and bring the hope and determination back to there too to inspire more children to grow with aspiration, succeed and make contributions to the development of their hometown and the prosperity of the motherland when they grow up.

重视社会责任培训，2011 年组织所属企业相关人员参加第七期、第八期中国瑞典企业社会责任培训项目；并通过下发材料、电话沟通等多种形式组织社会责任对口工作人员学习社会责任相关理论、指标体系等，提高从业人员认识水平。

Emphasis on social responsibility training. In 2011, the Company organized relevant employees in the enterprises under administration to participate in the Seventh and Eighth Sino-Swedish Corporate Social Responsibility Training Programs; in addition, it also organized the employees related to the social responsibility work to learn the social responsibility theory, the index system, etc. through issuing the materials, telephone communication and other forms to enhance the knowledge level of the relevant employees.

开展社会责任研究，参加国资委《中央企业“十二五”和谐发展战略纲要》和《中央企业社会责任指引研究》课题，并提交中钢集团相关案例。

Carried out the study on social responsibilities and participated in the research subjects of SASAC titled as the "12th Five-year Plan Period" Harmonious Development Strategy Outline for Central Enterprises and the Central Enterprises Social Responsibility Guidelines Study, and submitted relevant cases of Sinosteel Corporation.



2011.11.11/22

2011.12.17

2011 年 11 月 11 日，中钢集团负责人参加国资委中央企业社会责任工作会议。中钢集团“善尽责任，构建和谐社区关系”海外社区责任实践案例入选 2011 年中央企业优秀社会责任实践。

On November 11, 2011, the leader of the Sinosteel Corporation attended the SASAC Central Corporate Social Responsibility Working Conference. Sinosteel Corporation's "Fulfilling responsibilities to build a harmonious community relation" overseas community responsibility practice case was selected as 2011 central enterprise outstanding social responsibility practice.

2011 年 11 月 22 日，由北京融智企业社会责任研究所暨全球契约中国网络中心办公室（以下简称“融智”）主办的“首届可持续发展与企业竞争力年会”在北京召开。全球契约中国网络中心办公室组织专家委员会开展评选活动。本次评选从正式发布 2010 年社会责任报告或可持续发展报告的 150 多家中国企业中，遴选出 20 份企业社会责任报告。《2010 中钢集团可持续发展报告》荣获“典范实践奖”。

On November 22, 2011, "the First Sustainable Development and Enterprise Competitiveness Annual Meeting" was held in Beijing, which is organized by Beijing Rongzhi Institute for Enterprise Social Responsibility and Global Compact Network China (hereinafter referred to as "Rongzhi"). The Global Compact Network China organized an experts committee to carry out appraisal and selection activities. This activity selected 20 Corporate Social Responsibility Reports from more than 150 Chinese enterprises that have officially released 2010 Social Responsibility Reports or the Sustainable Development Reports. The Sinosteel Corporation Sustainability Report 2010 won a "model practice award".

12 月 17 日，“2011 中国企业社会责任峰会”在钓鱼台国宾馆隆重举行。本次会议的主题是“责任赢得诚信，责任引领未来”。会上，由新华网网民投票评选的“2011 中国企业社会责任杰出企业”和“2011 中国最具创新力企业社会责任报告认证书”揭晓。经过中国企业社会责任评级委员评选，中钢集团等 15 家企业获得了“2011 中国最具创新力企业社会责任报告”奖。

On December 17, 2011, "China Enterprise Social Responsibility Summit" was ceremoniously held in Diaoyutai State Guesthouse. The theme of this meeting is the "responsibility wins the integrity and responsibility leads the future". At the meeting, "2011 Chinese Enterprises with Outstanding Social Responsibility" and "2011 China's Most Innovative Corporate Social Responsibility Report Certification" selected by cyber citizen voting of Xinhua Internet were announced. After the selection of China's Corporate Social Responsibility Rating Committee, 15 enterprises including Sinosteel won the "Award of 2011 China's Most Innovative Corporate Social Responsibility Report".





# 1

## 价值产业链 Value-added Industry Chain

中钢集团在为钢铁工业提供综合配套、系统集成服务的过程中，高度重视履行好股东责任、伙伴责任、客户责任，同时，努力做好科技创新、安全生产、风险管理、信息化建设等工作。我们始终将价值创造和责任履行有机结合，致力于打造负责任的价值产业链。

In the course of offering integrated supporting and systematic integration services for steel industry, Sinosteel Corporation attaches great importance to fulfilling a shareholder responsibility, partner responsibility, customer responsibility, and at the same time, strives to make scientific and technological innovation, safe production, risk management, information technology construction, etc. We always make organic combination between the value creation and responsibility fulfillment and are committed to building a responsible value-added chain.





## 股东责任 Shareholder Responsibility

### 完善公司治理 Improve corporate governance

中钢集团按照现代企业管理制度的要求，不断规范和完善公司治理和管理模式。我们按照“科学有效、责权明确、指挥有序、运转顺畅”的总要求，不断规范运作，努力提升公司治理水平，建立了以公司股东大会为权力机构、董事会为决策机构、监事会为监督机构、经营层为日常经营管理机构的现代企业法人治理结构。

2011年中钢集团进一步贯彻国资委关于建立规范、科学、高效的决策运营机制，不断加强董事会建设的要求，规范法人治理结构，对公司董事会工作的开展进行了研究探索，系统提出了“实现一个目标，完成当期三大任务，突出履行四项职责，实施加强董事会建设六项措施”的工作思路，全年共组织召集股东大会4次，审议议案18个。召开董事会会议5次，审议议案22个，积极推进了董事会建设各项工作的开展，有力支持了相关经营管理工作。

### 优化集团管控 Optimize group management and control

实现稳定健康可持续发展需要构建更加科学、规范、高效的管控模式来支撑。2011年下半年，公司聘请中介机构着手启动集团管控模式优化工作。2012年3月，大力推进实施业务整合和管控模式优化，集团股份两级总部实现一体化运作，将16个部门调减为“10+1”个部和中心，同时，整合公司现有业务，形成“6+3”产业发展及业务运营体系，组建了六大事业部和三大运营管理中心。改革后的公司总部核心职能得到强化，事业部和运管中心以聚焦板块运营管理为重点已启动运行，板块内协同经营和对标挖潜开始向更深层次拓展。

Sinosteel Corporation constantly standardizes and improves the corporate governance and management mode in accordance with the requirements of modern enterprise management system. Following the general requirements of “scientific and effective, clear responsibility and authority, orderly command, smooth operation”, we continues regulating the operation, makes efforts to enhance the corporate governance, and have established a modern corporate governance structure that takes the shareholders' meeting as the organ of the power, the Board of Directors as the decision-making body, the Board of Supervisors as the oversight body and the business layer as the daily operation and management body.

In 2011, Sinosteel Corporation further implemented the requirements of the SASAC on establishment of a standardized, scientific and efficient decision-making operation mechanism and the ongoing enhancement of the Board building, standardized the corporate governance structure, and studied and explored the work of the Board of Directors and systematically put forward a work idea to “realize one goal, fulfill three major tasks of the current stage, particularly perform four duties and implement the six measures of strengthening the Board building”, the Company has convened 4 sessions of the general meeting of shareholders throughout the year, in which 18 proposals were discussed. The Company also held 5 sessions of board meetings, during which 22 proposals were discussed, and actively promoted various work of board building and provide strong support for the relevant operation and management work.

The realization of stable, healthy, sustainable development needs to build a more scientific, standardized and efficient management and control mode to support. In the second half of 2011, the Company hired intermediaries to start the optimization work of the Group's management and control mode. In March 2012, the Group vigorously promote the implementation of business integration and Group and the Corporation Limited; the two levels of the headquarters of the Group and the Corporation Limited realized the integrated operation and adjusted and reduced the 16 departments to “10+1” departments, offices and center(s); at the same time, it integrated the company's existing businesses to make it form a “6+3” industrial development and business operating system, forming six major business units and three administration centers. The core functions of the company's headquarters after the reform have been strengthened, and the Business Units and the Administration Centers have started operation with the emphasis of the focused block's operation management, in which the co-operation and the potential exploration against the standards have started their in-depth expansion.

### 加强制度管理 Strengthen the management of the systems

自2010年9月至2011年9月，中钢股份开展为期一年的“制度执行年”活动。活动以贯彻落实国家审计署审计整改意见为契机，目的是对公司制度执行情况进行一次全面的检查和梳理，在此基础上，进一步完善制度建设，强化制度执行监管，夯实制度管理基础，健全制度管理体系。

“制度执行年”活动开展以来，公司新增制度117个，完善修订制度274个，自查整改工作成效显著。下一步，公司将在全面优化制度体系的基础上，以多种形式对制度进行宣贯，做好执行制度的宣传工作，使全体员工知晓制度的内容，促使员工在工作中能严格按制度执行，从而推动全集团不断完善制度管理的相关工作。



通过一体化运作，更好地发挥公司资源和能力的合力  
Through the integrated operation, to give better play to the composite forces of the Company's resources and capabilities

From September 2010 to September 2011, Sinosteel Corporation Limited carried out a one-year “System Implementation Year” activity. The activity took the implementation of the National Audit Office's audit rectification opinions as an opportunity to conduct a comprehensive inspection and combination for the implementation of the corporate systems, and on this basis, to further improve the system construction, strengthen the supervision on the system implementation, consolidate the base of the system management and build a sound system of system management.

Since the implementation of “System Implementation Year” activity, the Company has added 117 new systems and improved and revised 274 systems, self-examination and rectification work has gained remarkable results. In the next step, the Company will be based on the full optimization of the institutional system to publicize and implement the systems in various forms and make efforts for the promotion of implemented systems, making the entire staff to know the contents of the systems and motivate employees to perform their work strictly in accordance with the systems, so as to facilitate the entire Group to constantly improve the work relevant to system management.





## 伙伴责任

### Responsibility for Partners

中钢集团注重与利益相关者和谐共处，并与重要的利益相关者构建战略合作伙伴关系。通过与钢铁行业内上下游企业及海内外各界同仁建立战略合作伙伴关系，有力地巩固和扩大了集团的合作伙伴和战略客户群，提高了企业的社会声誉，为今后的长远发展创造了条件。

全面开展战略合作。扩大与地方政府、钢铁企业、钢厂上下游企业、金融机构、高等院校等五个层次的战略合作，建立稳定的客户关系、社会公共关系和产学研互动关系，提升社会影响。

Sinosteel attaches importance on the harmonious relations with the stakeholders, and building strategic partnerships with key stakeholders. Through the establishment of strategic partnership with the upstream/downstream enterprises in the steel industry and counterparts at all walks of life at home and abroad, it has effectively consolidated and expanded the Group's partners and strategic customer base, improved the social reputation of the enterprise and laid a foundation for the long-term development in the future.

Carry out comprehensive strategic cooperation. The Company has expanded the five levels of strategic cooperation with local governments, steel enterprises, the upstream and downstream enterprises of steel mills, financial institutions, colleges and universities to establish stable customer relationships, social public relations and production-learning-research interactive relationship so as to enhance the social influence.

## 与地方政府合作

### Cooperation with local governments



#### 中钢集团总裁参加浙江与中央企业合作洽谈会

President of Sinosteel participated in the cooperation fair of Zhejiang and central enterprises

2011年12月26日，贾宝军总裁参加了在杭州举行的浙江与中央企业合作洽谈会。国务院国资委主任王勇，浙江省委书记赵洪祝等领导出席会议并讲话。进一步加强央企与浙江的合作，不仅有利于促进浙江经济转型升级、推动富民强省目标的顺利实现，也有利于央企做强做优，加快建设具有国际竞争力的世界一流企业。

中钢集团与浙江省政府有着长期广泛的合作基础，双方合作涉及低碳经济新材料、贸易物流、港口桥梁、货物存储等多个领域。作为现代生产性服务业的代表企业，中钢集团将抓住浙江服务业的发展契机，通过加大战略性投资和促进现代生产性服务业创新，结合自身战略选择和发展需要，积极参与浙江省建立多层次、社会化、专业化的现代服务业体系的建设。

On December 26, 2011, President Jia Baojun attended the Zhejiang and Central Enterprise Cooperation Fair in Hangzhou. Wang Yong, director of the SASAC, Zhao Hongzhu, Secretary of Zhejiang Provincial Committee of the CPC and other leaders attended the meeting and delivered speeches. The further strengthened cooperation between the central enterprises and Zhejiang province is not only conducive to facilitating Zhejiang's economic transformation and upgrading, and promoting the smooth realization of enriching common people and rejuvenating the province, but also conducive to helping central enterprises become strong and excellent to accelerate the construction of a world-class enterprise with international competitiveness.

Sinosteel Corporation and Zhejiang Provincial Government have a long-term and wide range of cooperation base. The bilateral cooperation involves new materials for low-carbon economy, trade & logistics, ports and bridges, goods storage and many other fields. As a representative enterprise in modern production-related service industry, Sinosteel Corporation will seize the development opportunity of Zhejiang service industry, through increased strategic investment and the promotion of innovation in modern production-related service industry, taking into consideration of its own strategic choices and development needs, to actively participate in the Zhejiang Province's building of a multi-level, socialized, professional modern service industry system.



活动现场  
Event site



#### 中钢集团参加央企走进河北战略合作恳谈会

Sinosteel participated in the strategic cooperation conference of Hebei and central enterprises

2011年11月24日至25日，中钢股份刘安栋副总经理赴河北省石家庄市出席央企走进河北战略合作恳谈会及相关主题活动。国务院国资委主任王勇，副主任黄丹华、姜志刚，各厅局领导以及来自111家中央企业的领导和代表共同出席此次会议。恳谈会上，多家央企深入交流，对接洽谈，与河北省签署一系列合作协议，开启了央企与河北战略合作新的一页。

From November 24 to 25, 2011, Liu Andong, deputy general manager of Sinosteel Corporation Limited went to Shijiazhuang City, Hebei Province to attend the strategic cooperation conference of Hebei and central enterprises and related theme activities. Director Wang Yong, deputy director Huang Danhua and Jiang Zhigang of the SASAC, the leaders of various departments and bureaus, as well as leaders and representatives from 111 central enterprises attended the meeting. In the conference, a number of central enterprises had in-depth exchanges and matched discussions and signed a series of cooperation agreements with Hebei province, opening a new chapter of the strategic cooperation between the central enterprises and Hebei Province.



## 与科研院所合作 Cooperation with research institutes

### 中钢集团与武汉科技大学签订战略合作协议 Sinosteel Corporation and Wuhan University of Science and Technology signed a strategic cooperation agreement

2011年12月5日，中钢集团与武汉科技大学战略合作协议签字仪式在湖北武汉隆重举行。建立战略合作伙伴关系是双方提升核心竞争力、寻求稳健发展的战略选择。今后，双方将进一步发挥各自优势，在科学研究、人才培养、技术攻关等领域开展深层次、宽领域的合作，通过积极探讨共建科研试验平台、拓展人才培养与科研合作空间，共同构建以市场为导向，以企业为主体，产学研相结合的科技创新体系，实现校企联合、优势互补、共赢发展。

On December 5, 2011, a strategic cooperation agreement signing ceremony between Sinosteel Corporation and Wuhan University of Science and Technology was held in Wuhan, Hubei. The establishment of a strategic partnership is the result of a strategic choice for both parties to enhance the core competitiveness and seek the steady development. The two parties will further give play to their own strengths

to carry out an in-depth and wide-range cooperation in scientific research, talent training, technology research and other areas so as to co-build a test platform for scientific research and expand the space of talent training and scientific research cooperation via active exploration. Both of the parties will also jointly build a scientific and technologic innovation system with enterprises as the main body, guided by the market, featured by combination of industry, university and institute, so as to achieve university-enterprise alliance, complementary advantages, and win-win situation in development.



签字仪式现场  
Signing ceremony site

### 中钢设备公司与北京科技大学签署项目合作协议 Sinosteel Equipment & Engineering Co., Ltd. signed a project cooperation agreement with Beijing University of Science and Technology

2011年8月28日，中钢设备有限公司与北京科技大学在北京签署“先进冶金装备及工艺研究开发合作协议”，双方将围绕新型连铸和轧制工艺、转底炉、全氧高炉等新技术建立联合研发团队，共同进行数值仿真和物理模拟研究，开发中（终）试样机或工业试验线，进行工业化推广和国际市场开拓。

这是对中钢集团与北科大2006年战略合作协议的延续和深化，双方将共同努力，加快推进合作，早出研发成果。

Sinosteel Equipment & Engineering Co., Ltd. and Beijing University of Science and Technology signed the "Advanced Metallurgical Equipment and Technology Research and Development Cooperation Agreement" in Beijing on August 28, 2011, both parties will establish a joint R &

D team focusing on a new continuous casting and rolling process, the rotary hearth furnace, full oxygen blast furnace and other new technologies to jointly carry out the numerical simulation and physical simulation study, to develop the pilot (final) plant test sample machine or industrial test line for industrial promotion and international marketing.

This is continuation and deepening cooperation of the 2006 strategic cooperation agreement between Sinosteel Corporation and Beijing University of Science and Technology, and both parties will work together to accelerate the cooperation and generate R & D results as early as possible.



活动现场  
Event site

## 与钢铁企业合作 Cooperation with the steel enterprises

### 与台湾中钢签署《战略合作协议》 Sinosteel Signed the Strategic Cooperation Agreement with China Steel in Taiwan

随着两岸关系的改善和经贸合作的加强，携手共赢发展已成为两岸企业的共识。2011年8月5日上午，中国中钢股份有限公司（以下简称中钢股份）与位于高雄的中国钢铁股份有限公司（以下简称中国钢铁）负责人聚首北京中钢总部，共谋发展新篇。中钢股份董事长贾宝军与中国钢铁董事长邹若齐代表双方签署了《战略合作协议》，中钢股份蒋宏副总与中国钢铁刘季刚副总签订《2011年度合作协议》。协议的签署开启了两岸中钢全方位、宽领域、多层次合作的新阶段。

中国钢铁是台湾地区最大的钢铁生产企业，在钢铁主业及多元化经营上，为企业运营建立了成功典范。中国中钢是大陆最大的钢铁生产服务商，为钢铁工业和钢铁生产企业提供综合配套、系统集成服务。双方自2006年起开展合作。此次战略协议的签署将进一步密切双方合作，实现互利共赢发展。

With the improvement of cross-strait relations and the enhancement of economic and trade cooperation, working together for a win-win development has become the consensus of the enterprises on both parties. In the morning of August 5, 2011, the leaders of Sinosteel Corporation Limited (hereinafter referred to as the Sinosteel Limited) and China Steel Corporation (hereinafter referred to as the China Steel) located in Kaohsiung, Taiwan gathered in Beijing Sinosteel headquarters to jointly seek a new landscape of the development. The chairman of Sinosteel Limited, Jia Baojun, and the chairman of China Steel, Zou Ruoqi, signed the Strategic Cooperation Agreement on behalf of respective side. The vice president Jiang Hong of Sinosteel Corporation and the vice president Liu Jigang of China Steel signed the 2011 Annual Cooperation Agreement. The signing of the agreements opened a new stage of a full range, wide-range and multi-level cooperation between the cross-strait Sinosteel and China Steel.

China Steel is the largest steel producer in Taiwan, and has built a successful example in terms of the operations of steel industry as the main business and the diversified businesses. Sinosteel is the mainland's largest steel production service provider to provide comprehensive supporting and systematic integration services for steel industry and steel production enterprises. The two parties have started their cooperation since 2006. The signing of the Strategic Agreement will further facilitate the cooperation of two parties to achieve mutual benefit and win-win development.



两岸“中钢”携手签署战略合作协议  
The cross-strait Sinosteel and China Steel jointly signed a strategic cooperation agreement





## 中钢股份与河北钢铁集团签署《战略合作协议》 Sinosteel Corporation Limited and Hebei Iron & Steel Group signed the Strategic Cooperation Agreement

2011年3月13日，中国中钢股份有限公司应邀出席河北钢铁集团在北京举行的《战略合作协议》签字仪式。中钢股份张经华副总经理与河北钢铁股份于勇总经理代表双方签署了《战略合作协议》。双方将进一步互利合作，优势互补，推进宽领域、全方位、深层次的战略合作。

On March 13, 2011, Sinosteel Corporation Limited was invited to attend the Strategic Cooperation Agreement signing ceremony by Hebei Iron & Steel Group in Beijing. The deputy general manager of Sinosteel Corporation Limited, Zhang Jinghua, and the general manager of Hebei Iron & Steel Corporation, Yu Yong, signed the Strategic Cooperation Agreement on behalf of respective parties. The two parties will further take mutually beneficial cooperation, complementary advantages,

and promote wide-ranging, comprehensive and in-depth strategic cooperation.



签字仪式现场  
The signing ceremony site

## 与上下游企业合作 Cooperation with upstream and downstream enterprises

加强和深化同其他央企的战略合作，携手共拓发展空间，是推进中钢科学发展的重要举措。2011年8月10日，中国中钢股份有限公司与东方电气股份有限公司负责人相聚中钢总部，共商合作大计，同绘发展蓝图。中钢股份董事长贾宝军与东方电气董事长斯泽夫代表双方签署了《战略伙伴合作协议》，中钢股份副总经理张经华与东方电气常务副总裁张志英签订了《土耳其电厂合同》。战略合作协议的签署，将有利于发挥双方在装备制造与工程总承包领域的比较优势，进一步拓展海内外合作发展空间。

Strengthening and deepening the strategic cooperation with other central enterprises so as to explore the spaces for development is an important measure to promote the scientific development of Sinosteel. On August 10, 2011, the leaders of Sinosteel Corporation and Dongfang Electric Co., Ltd. gathered together at the Sinosteel headquarters to discuss cooperation plans and jointly drew the blueprint for the development. The President of Sinosteel Corporation, Jia Baojun, and chairman of Dongfang Electric, Si Zefu, signed the

Strategic Partnership Cooperation Agreement on behalf of the two parties respectively; deputy general manager of Sinosteel Corporation, Zhang Jinghua, and the executive vice president of Dongfang Electric, Zhang Zhiying, signed the Turkish Power Plant Contract. The signing of the strategic cooperation agreement is conducive to giving play the comparative advantage of both parties in the field of equipment manufacturing and general contracting of the projects to further expand the cooperation and development space at home and abroad.



活动现场  
Event site

## 诚信经营 Operation and Management Integrity

在合作共赢、共同发展的经营理念指导下，中钢集团坚持诚信经营，推进责任采购：围绕生产性服务企业的定位，加强供应商管理，规范企业招标工作；推行绿色采购理念，引导所属企业“绿色生产”；积极实施以资源为导向的“走出去”战略，拓展国内外矿产资源储备，以企业行为促进国家的经济安全和资源安全工作，促进可持续发展。

同时，公司加强采购的规范管理，较大的采购对外招标，由中钢招标公司统一进行。中钢招标公司具备国家商务部授予的机电产品国际招标甲级资质和进出口经营权，为国内诸多大型项目提供招标专业服务。

Under the guidance of such operation concepts as win-win cooperation and mutual development, Sinosteel Corporation upholds the integrity of operation and management and promotes responsibility for procurement: by focusing on the positioning of a production-related service enterprise, the Company has strengthened the management of suppliers, standardized the enterprise tendering exercise; promoted green procurement concept, guided own enterprises toward "green production"; actively implemented the resource-oriented "going out" strategy to expand domestic and foreign mineral resources reserves, and facilitated the national economic security and resource security with business behavior, thus promoting sustainable development.

At the same time, the Company has strengthened the standardized management of the procurement. For the large-scale procurement, the public bidding has to be applied, which is conducted uniformly by Sinosteel Tendering Co., Ltd. The Sinosteel Tendering Co., Ltd. has the Grade A qualification of international tendering and import & export operation rights for mechanical and electrical products granted by the Ministry of Commerce and has provided professional services in bidding for many domestic large projects.

## 优化物流 Logistics Optimization

面对严峻的市场挑战，2011年，中钢货运公司从“抓经营、优化服务、控制风险、强化管控”等多方面入手，稳扎稳打，踏实经营，推动公司优化物流工作。

第一，积极做好集团内部服务。一是努力降低物流成本，进一步向港方争取港口作业费率的优惠，目前已在大部分港口取得了最惠费率，减免堆存费事宜已在部分港口取得了一些进展；二是提升服务品质，进一步加强现场管理，通过精细化操作，最大程度减少货物损耗，提升服务价值。

第二，稳步推进第三方业务。面对严峻的市场形势，中钢货运及各子公司积极做好已有客户的维护工作，并在有效控制风险的前提下，提升第三方业务的效益水平。

Under the severe market challenges, in 2011, Sinosteel Shipping & Forwarding Company started from "focusing on operations, optimizing services, controlling risk, and strengthening the management and control" and other aspects to carry out a steady and sound operation, promoting the optimization of logistics of the Company.

Firstly, actively carry out intra-group services. The first is to reduce logistics costs as much as possible and try to obtain the further discount of port operation charge rate from the Hong Kong port; currently, the most favorable rates have been achieved in most ports, and reduction or exemption of stockpiling fee has made some progress in some ports; the second is to enhance service quality, to further strengthen the on-site management, through the meticulous operation to further minimize cargo loss and improve service value.

Secondly, steadily advance the third-party business. In the face of challenging market conditions, Sinosteel Shipping & Forwarding Company and its subsidiaries took initiatives on the maintenance of existing customers, and enhanced the effectiveness of the third-party business under the premise of effective control of risks.



## 客户责任

### Responsibilities to Customers

#### 客户关系管理

##### Customer relationship management

中钢秉承与商业伙伴合作共赢的理念，与战略客户保持着经常的、多领域的、深层次的合作关系，充分挖掘合作空间。公司以满足顾客需求为中心、以提高顾客满意度为着眼点和出发点，重新审订企业标准，开展精益服务，创新服务模式，调整产品结构，实施现场技术服务，与顾客建立长期稳定、互利双赢的战略关系。

Adhering to the concept of win-win cooperation with business partners, Sinosteel maintains a regular, multi-field, in-depth cooperation relationship with strategic customers and fully taps the cooperation space. Centered on meeting customer needs and taking the improvement of the customer satisfaction as the focus and starting point, the Company reviews the corporate standards again, carries out meticulous services and innovative service models, adjusts product structure, implements the on-site technical services to establish with customers a long-term, stable, mutual benefit and win-win strategic relationship.

#### 售后服务体系

##### After-sales service system

近年来，中钢开始实施“全面售后服务”管理和“精益服务”管理，最大限度地发挥产品的功效和促进销售，满足顾客需要，注重客户体验，提升服务质量。

In recent years, Sinosteel begins to implement the "full-scale after-sales services" management and "meticulous services" management for maximizing the functions of the products, promoting sales, meeting customer needs, paying attention to customer experience and improving service quality.

#### 产品质量管理

##### Product quality management

2011 年，中钢继续推广质量经营理念，强化精益服务意识，树立“质量服务经营，经营依靠质量”的观念。在组织专家研讨的基础上，现已初步形成了适合中钢的质量经营度评价方案，下一步将组织企业质量主管人员培训并赴典型企业调研论证，形成最终方案后开展评价工作。

In 2011, Sinosteel continued to promote the concept of quality management, strengthen the meticulous service awareness and establish the concept of "quality serving the management, management relying on the quality". On the basis of the expert's discussion and study, an evaluation program of quality management level suitable for Sinosteel has been developed preliminarily; in the next step, the Company will organize the trainings for staff in charging of quality and conduct investigation, research and verification on typical enterprises to generate a final plan for the evaluation work.

#### 中钢质量管理的目标 Objectives of Sinosteel quality management



以质立业，满足用户需要  
Rooted on the quality, to meet customer needs



以精为本，打造名牌产品  
With excellency as the basis, to build brand-name products



以诚相待，提供优质服务  
with integrity, to provide quality services



以效取胜，提高经济效益  
Winning by high efficiency, to enhance economic benefit

#### 案例 CASE

2011 年中钢邢机获得全国质量先进单位称号  
Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. won the title of the National Quality Advanced Unit in 2011

中钢邢机将“质量第一”作为企业的经营宗旨，始终坚持“坚持质量第一，追求顾客满意；坚持改进创新，追求质量进步”的质量方针，以追求卓越质量为目标，深入贯彻落实“八项质量原则”，建立了各部门、各岗位质量责任制，从人、机、料、法、环、测方面健全了各项质量管理体系和考核制度，通过推行全员创新、科技创新、质量管理体系评审、“两个工程”劳动竞赛、质量文化建设等形成了全员、全面、全过程的持续质量改进创新机制。

近年来，中钢邢机产品实物质量水平连年大幅度提升，达到同行业先进水平，产品“双采率”达到 96% 以上，优等品产值率达到 76.91%，冷连轧工作辊和热连轧精轧前段工作辊分别荣获轧辊行业国家唯一的质量金、银牌奖，前后共有 14 项产品获国家重点新产品称号，2 项产品获国家科技进步奖，7 项



技术人员研究改进工艺技术提高产品质量  
Technical staff studied the improvement of the technology to enhance product quality

产品获中国冶金科学技术奖，21 项产品获河北省科技进步奖，16 项产品获河北省优秀发明奖，46 项产品获河北冶金科学技术奖，40 项产品获邢台市科技进步奖，有 19 项自主研发的新产品经认定达到国际先进水平。





Taking the "Quality First" as the company's operation tenet and adhering to the quality principle that "insisting on quality first, pursuing the customer satisfaction; persisting in improvement and innovation, pursuing the quality improvement", Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. takes the pursuit of excellent quality as its goal, thoroughly implements the "eight quality principles", has established and improved the quality responsibility system for various departments and posts, and improved a variety of quality management systems and appraisal system with respect to personnel, machinery, material,

regulation, environment and test to form a new ongoing quality improvement and innovative system in all employees, full scale and entire process through the implementation of all-employee innovation, technological innovation, quality management system assessment, "two projects" work competition, quality culture building, etc.

In recent years, the product quality of Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. has been increasing significantly year by year, reaching the advanced level in the industry; the "dual-sampling ratio" of the products reached more than 96% and the superior product output value reached 76.91% , the cold rolling work rolls and the preceding work rolls of the hot precision rolling respectively won the only national quality gold, silver medals in roll industry, a total of 14 products have won the title of National Key New Products successively, 2 products received the national Science and Technology Progress Award, 7 products obtained China Metallurgical Science and Technology Award, 21 products secured Hebei Science and Technology Progress Award, 16 products won Hebei Provincial Outstanding Invention Award, 46 products gained Hebei Metallurgical Science and Technology Award, 40 products received the Xingtai Municipal Science and Technology Progress Award. The 19 independently developed new products have been verified to reach the international advanced level.

#### 案例 CASE

**中钢山东矿业加强选矿工艺管理强化质量指标控制**  
Sinosteel Shandong Mining Co., Ltd. enhances mineral processing and strengthens quality index control

中钢山东矿业采取多项措施加强工艺管理，严格工艺巡检制度，提高工艺管理水平。公司坚持开展技术交流，每月举行一次技术质量分析例会。通过交流，员工对各工序补加水量、流量、压力等指标有了较准确的判断，工艺操作水平有了较大提高。此外，公司

加强工艺巡检管理，将工艺巡检具体到各工段、各岗位。工艺巡检制度执行后，各项工艺指标趋于稳定，尾矿品位得到了有效控制，磁性铁回收率得到有效提高。



Sinosteel Shandong Mining Co., Ltd. has taken various measures to strengthen the process management, strictly implement the process inspection system to raise the level of process management. The company insists on carrying out technical exchanges, and holding the technical quality analysis meeting monthly. Through the exchanges, the staff has gained relatively precise judgment concerning the amount of additional water, rate of flow, pressure and other indicators, making their process operation level improved greatly. In addition, the company strengthens the management of process inspection, and splits the process inspection to each work section and post. After the execution of the process inspection system, the various process indexes tend to be stable and the grade of tailings is effectively controlled, and the recovery rate of the magnetic iron is increased effectively.

#### 案例 CASE

**中钢耐火公司高技术耐火制品一次通过宝钢验收**  
The high-tech refractory products of Sinosteel Refractory Co., Ltd. passed the Baosteel acceptance for one time

中钢耐火公司一直高度重视产品研发质量。2011年初，中钢耐火公司赛隆分厂“COREXC3000 项目碳化硅 AGD 砖”顺利通过宝钢技术专家验收。此套宝钢重点合同“AGD 砖”为世界首创，被冠以世界上“难度最大”的耐火制品。宝钢股份首席专家对此套“AGD 砖”给予高度评价，并希望今后继续合作高难度项目。

Baosteel's chief experts spoke highly of this set of "AGD brick" and hoped to continue the cooperation in highly difficult projects.

Sinosteel Refractory Co., Ltd. has always attached great importance to the quality of product development. In the early 2011, Sinosteel Refractory Co., Ltd. Sailon Branch's "silicon carbide AGD brick for the COREXC3000 project" has smoothly passed the acceptance by Baosteel technical experts. This set of "AGD brick" of Baosteel key contract is the world's first products, named as the world's "most difficult" refractory products.





## 顾客满意度 Customer Satisfaction

中钢逐步探索建立顾客满意评价机制，推进企业持续改进质量管理水平，更强调一把手加强质量意识，主持制订质量方针目标，建立和健全质量、环境和职业健康安全管理体系，努力实现持续改进和常态化管理；责任落实到人，职能分解到位。

Sinosteel gradually explores to establish the customer satisfaction evaluation mechanism to promote the enterprise's continuous improvement of the quality management level; it also puts more emphasis on the top leaders' quality awareness, requiring them to preside over the development of the quality policy objectives so as to establish a sound quality, environment and occupational health & safety management system, and strive to achieve continuous improvement and normal management with responsibilities to be allocated to individuals and functions to be divided into the posts.

### 案例 CASE

#### 中钢西重分别荣获马钢和中冶赛迪优秀供应商称号

Sinosteel Xi'an Heavy Machinery Co., Ltd. won the title of the excellent supplier by Maanshan Iron & Steel and CISDI respectively

2011年，中钢西重被马鞍山钢铁公司授予“马钢采购物资优秀供应商称号”。此次马钢从1370多家供应商、22家战略合作供应商中评选出了10家优秀供应商。在“2011年投资供应商大会”上，中钢西重与马钢签署了新一轮战略合作协议。双方领导就加强

In 2011, Sinosteel Xi'an Heavy Machinery Co., Ltd. was named by Maanshan Iron & Steel Company as the "Excellent Supplier of Maanshan Iron & Steel Goods Procurement". At this event, Maanshan Iron & Steel selected the top 10 excellent suppliers from over 1370 suppliers and the 22 strategic partner suppliers. In "2011 Investment Supplier Conference", Sinosteel Xi'an Heavy Machinery Co., Ltd. and Maanshan Iron & Steel signed a new



合作、共同发展等方面进行了热情、友好座谈，为加强和进一步拓展双方合作奠定了坚实基础。

2011年，中钢西重还获得了中冶赛迪“2006—2010年度优秀供应商”荣誉称号。中钢西重从上世纪90年代开始与中冶赛迪开展合作，在多年合作中，中钢西重先后为其承制了“高炉无料钟炉顶炉前设备”、“炼钢板坯连铸设备”、“轧钢棒线材设备”、“冷轧后处理设备”等，双方合作不断向更宽领域，更深层次迈进。

round of strategic cooperation agreement. Leaders of both parties have had a warm, friendly discussion on strengthening the cooperation and mutual development, etc., which has laid a foundation for further development of the bilateral cooperation.

In 2011, Sinosteel Xi'an Heavy Machinery Co., Ltd. also received the honorary title of CISDI as "2006-2010 Excellent Supplier". Sinosteel Xi'an Heavy Machinery Co., Ltd. has started the cooperation with CISDI from the 1990s, in years of cooperation, Sinosteel Xi'an Heavy Machinery Co., Ltd. has successively contracted and manufactured for CISDI the "blast furnace bell-less top/front equipment", "steel-making slab casting device", "steel rolling bar & wire equipment", "cold-rolling post-processing equipment", etc. The cooperation between the two parties is constantly developing toward the wider and in-depth fields.

### 案例 CASE

#### 中钢招标公司连续七年获年度“十大最具竞争力招标机构”荣誉

Sinosteel Tendering Co., Ltd. won the "Top 10 Most Competitive Tendering Agency" honor for seven consecutive years

由商务部中国国际招标网主办的2011年度电子招投标及采购行业评选活动经过企业申报、网上投票、评委会综合评审等多个环节综合评分，中钢招标公司被评为“十大最具竞争力招标机构”，这是公司连续七年获此殊荣。

2011年中钢招标公司实现国际招标代理额4.54亿美元，全年无有效质疑，在全国具有国际招标资质的208家招标机构中名列前茅，得到了各级主管单位、广大业主、供应商的认可和肯定。

In the 2011 E-Tendering/Bidding and Procurement Industry Appraisal and Election Activity organized by China International Tendering Network of Ministry of Commerce, under the comprehensive scoring through the process of the online application by companies, online voting and comprehensive review and appraisal of the judging panel, and other steps, Sinosteel Tendering Co., Ltd. was named as the "Top 10 Most Competitive Tendering Agency". The company has won this title for seven consecutive years.

Sinosteel Tendering Co., Ltd. achieved bidding proxy amount of USD 454 million in 2011 with no effective questioning in the whole year, which was ranked in the top position among the nation's 208 bidding agencies with international bidding qualification and secured the recognition and praise by the competent units at all levels, the majority of property owners and suppliers.





## 科技创新 Technological Innovation

中钢集团高度重视自身的科技研发实力和技术创新能力，坚持“科技成果化，成果专利化，专利产业化，产业效益化”的指导思想，不断加大科技创新投入，专门设立科技创新基金，逐步完善科技创新管理体系，科技创新能力持续增强。

Sinosteel Corporation attaches great importance to its own R & D capabilities and technical innovation capability, adheres to the guiding thought of “gaining achievement from science and technology, obtaining patents for the achievements, industrializing the patents, and gaining profits from the industry”, constantly increases the investment in scientific and technological innovation by establishing dedicated technological innovation fund and gradually improving the technological innovation management system, making its technological innovation capability improve constantly.

### 不断完善创新制度 Constantly improve the innovation system

为规范和统一中钢集团科技企业的经营管理，完善管理制度，继 2010 年组织编制完成“十二·五”科技规划后，2011 年，中钢集团首次将科技考核指标纳入科技企业考核体系并加以完善，加大科技工作考核力度，提高企业及研究人员的工作积极性和主动性，促进科技创新。

In order to standardize and unify the operation and management of technology enterprises in Sinosteel Corporation and improve the management system, after the completion of preparation of “12th Five-year Plan Period” Science and Technology Planning in 2010, in 2011, Sinosteel, for the first time, incorporated the technological assessment indicators into the evaluation system of scientific and technological enterprises and made it perfection; strengthened the scientific and technological assessment to enhance the enthusiasm and initiative of enterprises and research staff so as to promote technological innovation.

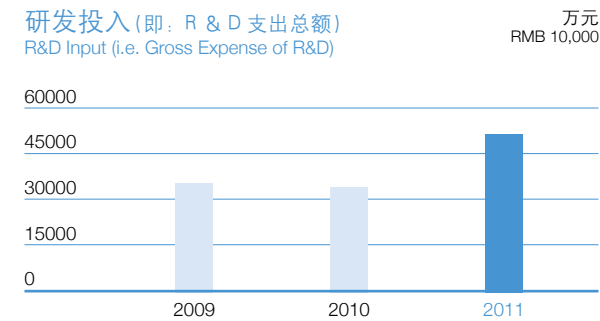


中钢集团注重技术创新，发挥资源整合优势。图为中钢设备公司承建土耳其高炉项目中，依靠技术创新和设备集成，使客户享受到“专业化、一体化解决方案”的便捷和高效。

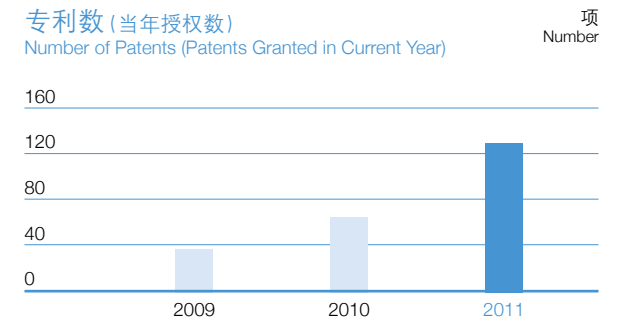
Sinosteel attaches great importance on technological innovation, and gives play to the resource integration advantages. The Figure shows the Turkey's blast furnace project contracted and built by Sinosteel Equipment & Engineering Co., Ltd. in which, by relying on the technological innovation and device integration, it allows the client to enjoy the convenience and efficiency of the “specialized and integrated solution”.

## 科技创新业绩 Technological Innovation Achievements

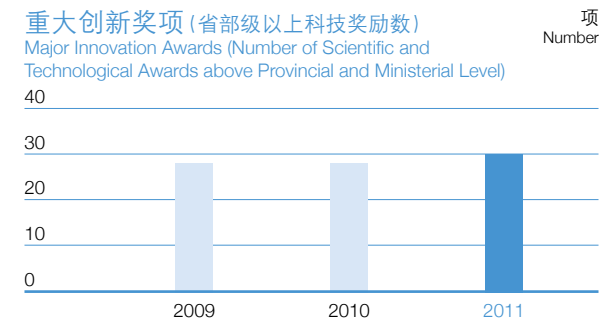
研发投入 (即: R & D 支出总额)  
R&D Input (i.e. Gross Expense of R&D)



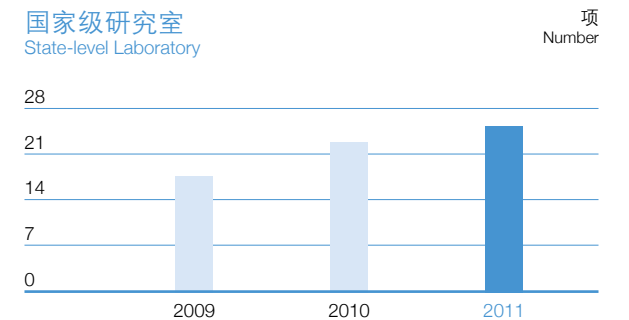
专利数 (当年授权数)  
Number of Patents (Patents Granted in Current Year)



重大创新奖项 (省部级以上科技奖励数)  
Major Innovation Awards (Number of Scientific and Technological Awards above Provincial and Ministerial Level)



国家级研究室  
State-level Laboratory



目前，中钢集团拥有3个国家级技术创新联盟、2个国家级行业科技服务平台、2个国家重点实验室、5个国家认定企业技术中心、9个国家工程（技术）研究中心以及6个国家检测中心。

To date, Sinosteel has 3 state-level technological innovation alliances, 2 state-level industry scientific and technological service platforms, 2 state-level key laboratories, 5 state certified enterprise technical centers, 9 state engineering (technology) research centers and 6 state testing centers.

2011 年，中钢衡重申报国家企业技术中心获批；中钢洛耐院和中钢安环院相继成立耐火材料产业技术创新战略联盟和冶金工业安全生产技术创新战略联盟；中钢矿业公司主持研发的“大型矿山排土场安全控制关键技术”项目、中钢马矿院参与的两个项目、中钢安环院参与的一个项目分获 2011 年度国家科技进步奖二等奖。

In 2011, Sinosteel Hengyang Machinery Co., Ltd. was granted state certified enterprise technical center; Sinosteel Luoyang Institute of Refractories Research Co., Ltd. and Sinosteel Wuhan Safety & Environmental Protection Research Institute Co., Ltd. founded a strategic alliance for refractory industry technological innovation and a strategic alliance for metallurgical industry safe protection technological innovation in succession; the project of “Key Technology for Safety Control in Refuse Dump of Large Mine” initiated by Sinosteel Mining Co., Ltd., two projects with the participation of Sinosteel Ma'an Shan Institute of Mining Research Co., Ltd., and one project with the participation of Sinosteel Wuhan Safety & Environmental Protection Research Institute Co., Ltd. were granted national Science and Technology Progress Second Award 2011 respectively.



## 案例 CASE

中钢洛耐院入选国家创新型企业  
Sinosteel Luoyang Institute of Refractories Research Co., Ltd. listed as state-level innovative enterprise

2011年3月，中钢洛耐院成功入选国家科技部、国资委、全国总工会新认定的第三批国家创新型企业，成为集团公司下属企业中首个国家创新型企业。

国家创新型企业评选的目的是通过创新型企业评选工作，推动试点企业总结创新发展的经验和做法，引导创新型企业建设，促进创新型（试点）企业进一步增强自主创新能力，带动更多的企业走创新发展道路，充分发挥创新型企业在加快转变经济发展方式中的示范带动作用。

中钢洛耐院在2008年申请成为国家创新型试点企业后，在体制与机制创新、研发支撑体系建设等方面采取了一系列措施，逐步建立了完善的技术创新体系，并围绕我国钢铁、有色、石化等高温行业，在关键耐火材料的技术创新方面走在我国耐火材料行业的前沿。“十一五”期间，累计承担国家项目17项，省部级项目12项；申报专利113项，获得授权专利50项；制定或参与制定国家和行业标准20项；获省部级以上奖励7项，其中“钢铁冶金储运与精炼设备炉衬材料长寿高效技术”获2008年国家科技进步二等奖，“大型铝熔炼炉用不定形耐火材料”获2009年河南省科技进步一等奖。



技术人员不断改进工艺，提高技术创新能力  
Technical staffs unceasingly improve processes and technology innovation capacity



中钢洛耐院碳化硅四期项目  
Phase IV Silicon Carbide Project of Sinosteel Luoyang Institute of Refractories Research Co., Ltd.

In March 2011, Sinosteel Luoyang Institute of Refractories Research Co., Ltd. was successfully listed in the third batch of state-level innovative enterprises certified by Ministry of Science and Technology, State-owned Assets Supervision and Administration Commission and All-China Federation of Trade Unions, becoming the first state-level innovative enterprise among subsidiaries of the Group.

The purposes of selecting state-level innovative enterprises are to promote those pilot enterprises to conclude experiences and practices about innovative development, provide guidance for innovative enterprise construction, encourage innovative (or pilot) enterprises to further enhance their independent innovation capacity, facilitate more enterprises to explore the way of innovative development, and fully play the demonstration and driving role of innovative enterprises in accelerating the transformation of economic development pattern.

Following its application for state-level pilot innovative enterprises in 2008, Sinosteel Luoyang Institute of Refractories Research Co., Ltd. took a series of measures in institutional and mechanism innovation, establishment of R&D supporting system, etc. It gradually established and improved its technology innovation system. Moreover, in some high-temperature industries, such as iron and steel, non-ferrous metal and petrochemical industries, it is at the frontier of domestic refractories industry in terms of key refractories technology innovation. During the “11th Five-Year Plan” period, it accumulatively undertook 17 national projects and 12 provincial department level projects; applied for 113 patents, with 50 out of them granted; formulated or participated in formulating 20 national and industry standards; won 7 awards at provincial and ministerial level or above, including the second prize of 2008 National Science and Technology Progress Award for “iron & steel and metallurgy storage and refining facility furnace lining technology” and the first prize of 2009 Henan Provincial Science and Technology Progress Award for “unshaped refractories for large-sized aluminum smelting furnace use”.

## 案例 CASE

中钢衡重被认定为国家级企业技术中心  
Sinosteel Hengyang Machinery Co., Ltd. Certified as the State-level Enterprise Technical Center

2011年11月16日，国家发改委在深圳会展中心隆重召开“国家电子商务示范城市、国家物联网云计算试点示范、国家创新能力建设”授牌大会，中钢衡重被授予“国家认定企业技术中心”称号，这标志着中钢衡重科技研发实力和技术创新水平处于国内同行先进水平。

为加强技术中心管理机制和技术创新能力建设，中钢衡重成立了技术委员会和专家委员会，搭建了两级技术创新体系研发平台，并相继建立20多项技术中心管理制度和100余项企业技术标准，致力于建设国内一流技术水平的矿山、冶金重型装备技术研发中心。近年先后申报受理专利70余项，其中发明专利15项，已获专利授权49项。公司大型矿山装备和热轧卷取机卷筒以及大型铸钢件的设计开发能力、生产制造水平、产品质量控制水平均处于行业领先地位。

National Development and Reform Commission convened a grand entitling ceremony for “National E-Commerce Demonstration City, National Internet of Things & Cloud Computing Pilot Project and National Innovation Capacity Building” in Shenzhen Convention & Exhibition Center on November 16, 2011. Sinosteel Hengyang Machinery Co., Ltd. was granted the title of “National Certified Enterprise Technical Center”, which is a token that the company's scientific and technological research and development power and technology innovation rank top among domestic peers.

In order to strengthen capacity building of management mechanism and technology innovation of the technical center, Sinosteel Hengyang Machinery Co., Ltd. set up a technical committee and expert committee, and established a 2-tier technology innovation system R & D platform. In addition, it established more than 20 technical center management systems and over 100 enterprise technical standards, devoting it to building a domestic top research and development center of mine and metallurgical heavy equipment technologies. Over the years, it applied for over 70 patents one after another, including 15 patents of invention, with 49 out of them been granted. The company's design and development capacity, manufacturing level and product quality control level for large-sized mine equipment and hot rolled coiler mandrels as well as large steel castings lead the industry.



公司不断加强团队技术创新能力建设，提升竞争实力  
The Company Persistently Enhances Its Team Technology Innovation Capacity Building and Improves Its Competitive Power





## 安全生产 Safe Production

2011 年中钢及所属各企业继续以“安全第一、预防为主、综合治理”为指导，坚持中钢股份“0123”安全生产模式，坚持“四季十二防”和安全提示制度，实现生产安全事故伤亡数同比下降 50%以上，保持了相对稳定的安全生产局面。

In the year of 2011, Sinosteel and all its subsidiaries continued to follow the guidance of “Safety Foremost, Focus on Prevention and Comprehensive Control”, kept “0123” safe production mode and adhered to “Twelve Preventions All Year Round” and safety instruction systems. The number of casualties arising from production accidents fell by over 50% on a year-on-year basis. It maintained a relatively stable situation of safe production.

## 安全管理体系 Safety Management System

中钢成立了安全生产委员会，建立了安全生产责任制，广泛进行安全生产教育培训，严格执行安全生产检查，扩大安全生产投入，提升安全生产条件，加强承包、租赁经营的安全生产管理，强化突发事件和应急管理，倡导安全文化建设，完善奖惩机制，形成了较为完善的安全管理体系。

按安全生产节能环保风险抵押承包责任书要求，对各企业进行了考核评分，兑现了 2010 年安全生产、节能环保奖金。与所属企业签订了 2011 年度安全生产风险抵押承包责任书，明确责任主体。

中钢集团总部督促各二级企业完成安全操作规程的修订，并组织外部安全专家对其进行审查、完善。

Sinosteel sets a safe production committee, establishes safe production accountability and gives extensive safe production education and training. It strictly implements safety production examination, increases input in safety production, improves safety production conditions, enhances safety production management over contracting and leasing operation, strengthens accident and emergency management, advocates safety culture advancement, and improves reward and punishment mechanism. Hence, a complete safety management system is formed.

It made an assessment on each enterprise according to contract of responsibility for safe production and environmental protection and risk control, and made good on 2010 safety production, energy conservation and environmental protection reward. Sinosteel signed Contract of Responsibility for 2011 Safety Production and Risk Mortgage with its subsidiaries to define subjects of liability.

Sinosteel headquarters urges each subsidiary to complete amendment of safety operation code, and organize external safety experts to make an inspection and improvement accordingly.

## 安全培训 Safety Training

中钢集团拥有比较完善的安全生产培训制度和体系，集团内实行全员培训，每年接受安全运营培训的员工近万人。

开展安全视频培训，推进安全生产标准化工作。2011 年，中钢集团组织专家通过视频对相关安全管理人员进行培训，通过理论知识的普及，为安全生产标准化建设工作的全面开展奠定了基础。

推进安全班组建设，巩固安全生产基础。中钢集团总部组织优秀生产班组长到 15 家二级企业介绍班组安全经验，共有 1800 多人听课，400 多人参加讨论交流，有力促进了企业安全班组建设。

Sinosteel Corporation has a complete safety production training institution and system and offers training for all employees. Nearly 10,000 employees received safe operation training every year.

It carried out safety training via video presentation and promoted safety production standardization. In 2011, Sinosteel Corporation headquarters organized experts to give training on concerned safety management personnel via video and laid a foundation for overall

implementation of safe production standardization by popularizing theoretical knowledge.

It also propelled the construction of safety team and solidified the groundwork of safe production. Sinosteel Corporation headquarters organized outstanding production team leaders to share team safety experiences with 15 secondary enterprises. More than 1800 employees took lessons and over 400 employees joined in discussions and communications, which vigorously promoted enterprise safety team building.



中钢总部组织优秀生产班组长到所属生产企业交流经验  
Sinosteel Group designated outstanding production team leader to share experiences in subsidiary production companies

### 案例 CASE

#### 中钢所属生产企业积极开展全员安全培训 Sinosteel production companies actively carried out safety trainings for all staffs

2011 年 11 月 2 日，中钢山东矿业 2011-2012 年度全员安全培训工作正式拉开帷幕。此次培训是公司落实 2011 年全员培训计划而举行的一次全员脱产培训。目的是增强员工的安全意识，实现安全操作规范化，消除或控制日常危险、有害因素，防止安全事故的发生。此次参与培训人员共 966 人。

中钢山东矿业通过分层次对公司全体员工以及生产施工单位负责人、安全生产管理人员和现场作业人员的系统安全管理理论和安全管理实务的培训，对提高公司的整体安全管理水平和实际操作技能，有效避免和杜绝生产安全事故的发生将起到非常重要的推进作用。



安全知识宣传  
Safety Knowledge Publicity

2011年4月，中钢吉铁启动2011年度全员安全培训。培训以中钢“0123”安全管理模式和中央企业安全生产禁令中的相关内容为主要依据，组织全体职工进行闭卷验收考试，对考试合格者发放《中钢吉铁员工安全培训合格证》，实行持证上岗。

Sinosteel Shandong Mining Co., Ltd. 2011-2012 Staff Safety Training was started on November 2, 2011. This was an off-the-job training in response to 2011 staff training program. It aims

to enhance staffs' safety awareness, normalize safe operation, eliminate or control daily risk and hazardous factors and prevent occurrence of safety accidents. Totally 966 employees participated in this training.

Sinosteel Shandong Mining Co., Ltd. gave systematic safety management theory and practice training to staffs, production construction unit manager, safety production manager and onsite operators by level, which plays a very important driving role in improving overall safety management level and practical operation skills of the company and effectively avoiding and eliminating occurrence of production safety accidents.

In April 2011, Sinosteel Jilin Ferroalloy Co., Ltd. launched 2011 safety training for staff. This training was mainly based on Sinosteel "0123" safety management mode and the appropriate contents in Ban for Central Enterprise Safe Production. The company held a closed book acceptance exam for all staff, issued Safety Training Certificate to those who passed the exam, and enabled those with the Certificate to work.

## 安全业绩 Safety Performance

指标 Index	单位 Unit	2011	2010	2009	2008
工伤人数 Work injuries	人 person	11	25	43	79
工亡人数 Work death toll	人 person	3	1	1	1
安全培训次数 Number of Safety trainings	次 Time	50	30	1	1
安全培训人数 Number of people receiving safety training	人 person	39200	39000	80*	100*

\* 该数据仅为集团总部组织的培训人数  
This data only refers to the number of trainees organized by the Corporation headquarters

中钢始终强调，各级领导干部要时刻绷紧“安全生产”这根弦。各所属企业要认真落实好安全生产工作，确保企业和员工的生命财产安全。要本着对员工高度负责的态度，狠抓落实，责任到人，做到“零事故、零死亡”。

Sinosteel always stresses that leaders and cadres at all level should pay high attention to safe production at any time. All subsidiaries must seriously fulfill production safety to ensure physical and property safety of enterprise and employees. It must attach importance to implementation and accountability with a strong sense of responsibility, achieving the aim of “zero accident and death”.

### 案例 CASE

#### 安全责任 重在落实 The Focus of Safety Responsibility Lies in Fulfillment

安全管理实践于行，在文化感召、制度严守之外，更需要脚踏实地地落实于日常生产工作中。“安全生产月”期间，各所属企业通过事故演练、专项检查等专项活动，严控危险源，消除危险点，为安全生产扫清死角，打造全员参与、人人都是安全员的“安全网”。

The key point of safety management lies in implementation. Therefore, apart from emotional appeal of culture and strict observance of rules, it is more important to conduct safety management during daily production in a down-to-earth work style. During “Safe Production Month”, all subsidiaries strictly controlled and eliminated hazard sources and cleared the blind areas of safe production through accident simulating exercise, special inspection and other similar activities, establishing a safety network where all employees are involved and all employees are safety personnel.



中钢川炭举行安全宣誓活动  
Sinosteel Sichuan Carbon Co., Ltd. Took a Safety Oath



## 风险管理 Risk Management

### 风险管理 Risk Management

中钢集团重视提高风险防范与管理水平，不断探索建立有效的全面风险管理体系和机制。2011 年，公司按照“强化风险管控、完善内控体系、规范制度执行、跟踪整改落实、提高企业经济效益”的原则，认真履行审计监督职责，共发现经营管理中存在的问题和风险 54 个，提出管理要求和审计意见 54 条，全年完成审计和效能监察项目 23 个。

公司在风险管理过程中，一方面注重从企业文化、机制、制度层面揭示、分析和反映问题，加大对经营风险和管理问题的揭示和反映力度；另一方面增强改进和完善建议的针对性，加强对整改的督促和跟踪，积极促进所属企业经营管理水平的提升。

### 反腐倡廉 Anti-corruption

2011 年，中钢集团各级纪检监察机构全面贯彻落实党的十七届五中全会、中央纪委六次全会和中央企业反腐倡廉建设工作会议精神，进一步提高认识，狠抓工作落实，努力为实现集团公司科学发展提供促进和保证作用。

一是召开集团 2011 年反腐倡廉建设工作会议，在提高认识、整体部署、统筹安排上下功夫。

二是组织开展纪委书记述职工作。

三是认真贯彻落实党风廉政建设责任制。

Sinosteel attaches great importance to risk prevention and management level and persistently explores a way to establish an effective and overall risk management system and mechanism. In 2011, the Corporation carefully fulfilled auditing and supervision responsibilities by sticking to the principle of “enhancing risk control, improving internal risk control system, normalizing system implementation, tracing rectification and implementation, raising economic benefit”. In total, it discovered 54 problems and risks existing in operation and management, proposed 54 management requirements and auditing suggestions and finished 23 auditing and performance inspection projects in 2011.

During risk management, the Corporation pays attention to discovering, analyzing and reporting problems from the perspectives of enterprise culture, mechanism and institution, and strengthens disclosure and reporting of operational risks and management problems; besides, it raises the pertinence of improvement suggestions, enhances supervision and tracking of rectification and actively promotes operation and management level of subsidiaries.

In the year of 2011, Sinosteel Corporation discipline inspection and control bodies at all levels comprehensively fulfilled the spirits mentioned in the Fifth Plenary Session of the 17th CPC Central Committee, the Sixth Plenary Session of the Commission for Discipline Inspection of Central Committee of the CPC and Central Enterprise Anti-corruption Work Conference. They strengthened their awareness, put emphasis on implementation and endeavored to play a promoting and guaranteeing role in scientific development of the Group Corporation.

Firstly, they convened 2011 Sinosteel Corporation Anti-corruption Work Conference and made great efforts in strengthening awareness, overall deployment and arrangement.

Secondly, work reporting by secretaries of Commission for Discipline Inspection was organized.

Thirdly, they carefully implemented accountability system for Party conduct and clean government construction.

四是积极开展效能监察和专项监督检查。

五是开展反腐倡廉宣传教育工作。

六是加强纪检监察制度建设。

七是加强纪检监察干部培训工作，组织了中钢集团反腐倡廉建设工作培训班。

八是加强案件查办和信访管理工作。

Fourthly, they actively carried out efficiency supervision and special inspections.

Fifthly, they conducted anti-corruption publicity and education work.

Sixthly, they strengthened discipline inspection and control system building.

Seventhly, they enhanced training on discipline inspection and control cadres and organized Sinosteel Corporation anti-corruption construction training class.

Eighthly, they strengthened case investigation and handling as well as complaints management.

#### 案例 CASE

#### 中钢集团举办反腐倡廉建设工作培训班 Sinosteel Corporation Opened Anti-corruption Construction Training Class



张涵光书记对中钢反腐倡廉工作作部署  
Secretary Zhang Hanguang made an arrangement at Sinosteel Corporation anti-corruption



会议现场  
Conference site

2011 年 7 月 13 日至 14 日，集团纪委在吉林市举办了中钢集团反腐倡廉建设工作培训班。公司所属境内企业纪委书记、分管纪检监察工作的领导班子成员及纪检监察干部代表共 87 人参加培训。培训进一步帮助纪检工作人员明确了当前反腐倡廉工作的形势和任务，提高了所属企业纪检监察干部的履职能力，不断促进中钢廉政建设再上新台阶。

Commission for Discipline Inspection of Sinosteel Group opened an anti-corruption construction training class on July 13-14, 2011. Some 87 persons, including secretaries of Discipline Inspection Commission of domestic companies, leaders in charge of discipline inspection and control and discipline inspection and control cadre representatives, participated in the training. This training further defined current anti-corruption situation and tasks for discipline inspection personnel, improved work capability of discipline inspection and control cadres of subsidiaries and continuously promoted anti-corruption construction of Sinosteel Group.





## 信息化 Informatization

2011 年，中钢集团信息化工作取得新进展：  
Sinosteel Corporation made new progress in informatization in 2011:

1 优化升级中钢所属企业 ERP 系统的应用功能，提升应用效果；推进 ERP 系统建设，扩大覆盖范围。

Optimize and upgrade application functions of ERP system of Sinosteel subsidiaries, improve application effects, promote ERP system building and expand its coverage.

2 加快推进商务智能系统建设和应用，实现信息化成果对经营决策和股份高管管理决策支撑作用。

Accelerate the construction and application of business intelligence system and realize informatization achievements' supporting effect on operational decision-making and management decision making of senior management.

3 开展 OA 系统升级，推动电子公文流转及 4D 工作跟踪流程使用。

Upgrade OA system and promote electronic official documents circulation and 4D work tracking process application.

4 加强各应用系统运维服务，提高运维质量。

Enhance operation and maintenance services of all application systems and improve operation and maintenance quality.

5 加强信息系统安全管理，升级安全产品，确保系统安全稳定。

Enhance information system security management, upgrade security products and ensure security and stability of systems.

6 在信息化制度建设方面：制定并发布《中钢股份 ERP 系统应用管理员管理办法》，逐步健全和完善符合中钢自身管理需要的 ERP 运维管理体系；9 月份，组织召开首次 ERP 系统应用管理员工作研讨会；年内组织 ERP 系统应用管理员培训和考试累计 410 人次。

In the aspect of informatization system building, we formulated and issued Sinosteel Corporation Limited Management Methods for ERP System Application Administers, gradually completed and improved ERP operation and maintenance management system which satisfies Sinosteel's own management needs; in September, we convened the first administer work conference of ERP system application. Accumulatively 410 ERP system application administers received training and took examinations this year.

7 在信息标准化工作方面，起草《中钢股份信息标准化管理办法》；结合中钢一体化管控和各企业实际需要，调整 ERP 系统物料分类结构；完成 ERP 四期物料标准化项目验收。

In the aspect of information standardization, we drafted Sinosteel Corporation Limited Management Methods for Information Standardization, adjusted material sorting structure of ERP system on the basis of Group integrated control and actual demand of each company, as well as finished acceptance of ERP Phase IV material standardization.

### 信息化成果为科学发展奠定了坚实的基础

Informatization Achievements Lay Sound Groundwork for Scientific Development

经过 7 年多的努力，中钢已成功构建了以 ERP 系统为核心，以 OA、资金、视频会议、广域网和信息标准化等为辅的集中统一管控平台，形成了相对完整的企业信息化应用架构。同时，2004 年信息化总体规划提出的信息化三大战略目标，即建立统一、全面、集成、实时共享的管理信息平台，满足跨区域进行集中管理的需求，实现资金流、信息流和业务流的高效整合已基本达到或实现。

随着以 ERP 为核心的信息化应用不断普及和深化，中钢信息化在支撑战略调整，提高管控能力，提升管理水平，支撑业务运营，促进流程优化，推动经营模式变革等方面发挥的作用日益显现。ERP 已完成 4 期建设，一体化应用（人力资源、财务、客户及供应商、业务全面应用）已覆盖 34 家企业，人力资源管理已基本覆盖整个集团，财务和客户管理已实现全级次 161 家企业应用。在国资委公布 2010 年度中央企业信息化水平评价结果中，中钢被评为 A 档企业，排名第 18 位。

Through more than 7 years' efforts, Sinosteel has established an integrated and uniform management platform centered in ERP system and supported by OA system, capitals, video conference, WAN and information standardization. Complete enterprise informatization application architecture comes into being. Meanwhile, we have generally achieved the three strategic informatization objectives set forth in 2004 General Informatization Planning. They are to establish a uniform, all-round, integrated and real-time sharing management information platform, to meet the needs of cross-regional integrated management and to realize efficient integration of capital flow, information flow and business flow.

As informatization application centered in ERP system is continuously popularized and intensified, Sinosteel informatization shows an increasingly prominent role in supporting strategy adjustment and business operation, improving management and control capability and level, promoting process optimization and operating mode revolution. We have finished ERP system Phase IV construction. The integrated application (human resources, finance, customers and suppliers, overall business application) has covered 34 companies. Human resources management has basically covered the whole Group. Moreover, finance and customer management has covered 161 companies at all grades. According to 2010 central enterprise informatization assessment results announced by the State-owned Assets Supervision and Administration Commission, Sinosteel was appraised as Class A enterprise, ranking the 18<sup>th</sup>.



中钢邢机冶炼工序推行无纸化信息传递技术  
Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. applies paperless information transmission technology in smelting process





科学发展对信息化建设提出更高的要求  
Scientific Development Raise Higher Requirements for Informalization Construction

国资委在“做强做优中央企业，培育具有国际竞争力世界一流企业”的工作思路研究中提出 13 项要素，“管理信息化处于较高水平”是要素之一，明确提出：充分利用信息化手段实现全集团范围内的管理制度化、制度流程化、流程信息化，建立起管理透明、系统集成、授权受控、安全可靠的管理信息系统，实现管控一体化。利用管理信息化手段实现对境外子企业的实时有效管控。

“十二五”期间，中钢信息化的建设目标：核心业务系统、综合管理系统和信息化基础设施水平要达到或接近同行业的世界先进水平。信息化应用成熟度要再上新的台阶，全面实现“业务在系统中操作、资金在系统中支付、流程在系统中控制、制度在系统中固化，管理在系统中贯通，风险在系统中受控”。

The State-owned Assets Supervision and Administration Commission puts forward 13 factors when making a study on work ideas about “strengthening central enterprises and fostering world leading enterprises with international competence” and “high management informalization” is among them. It explicitly points out we shall make full use of information based means to realize management system, system processes and process information, shall establish a safe and reliable management information system characterized in transparent management, integrated system and controlled authorization and shall realize management and control integration. We shall carry out real-time and effective management and control over overseas subsidiaries through management informalization means.

The objective of Sinosteel in informalization during the “12<sup>th</sup> Five-year Plan” period is to make core business system, comprehensive management system and information infrastructure reach or approach to world leading level in the same industry. The informalization application shall be more mature. We shall comprehensively realize the expectation of “business operation in system, capital payment in system, process control in system, institution solidification in system, management in system and risk control in system”.

保持管理改善与信息化建设同步推进  
Keep Simultaneous Promotion of Management Improvement and Informalization Construction

目前，中钢通过组建运营改善部，在推进信息化建设与运营管理融合方面已经迈出实质性步伐，在国内同类企业处于领先地位。2011 年下半年，中钢开展业务整合与管控模式研究咨询项目，将会对中钢的产业发展及业务运营体系以及集团一体化管控体系带来深刻的变化。以此为契机，中钢将针对规范 ERP 应用的需要，制定并颁布相关制度和要求，同步推进管理改善、加强管控、流程优化和系统优化，不仅达到提升 ERP 应用价值的目的，而且也促使 ERP 成为更加有效的管理工具和管控平台。

Presently, Sinosteel is making a substantial step toward promotion of informalization and integration of operation and management by setting up Operation Optimization Department. It is at the leading position in this aspect among domestic similar enterprises. In the second half year of 2011, the management and control mode research and consultation project implemented by Sinosteel will bring a profound change in our industry development, business operation system as well as the integrated management and control system of the Group. At the same time, Sinosteel will formulate and unveil relevant systems and requirements according to the needs imposed by ERP application normalization and promote management improvement, control enhancement, process and system optimization. It is expected to raise ERP application value as well as promote ERP to become a more effective management tool and platform.



信息化技能竞赛活动现场  
Site of Informalization Skill Competition

1 编制新一轮信息化规划，设计信息化新的建设蓝图。

We will formulate new informalization plans and design new blueprint for informalization.

2 开展决策支持系统，为经营管理提供高端决策服务平台。

We will deploy decision supporting system and provide high-end decision service platform for operation and management.

3 推广海外企业信息化建设，提高对国际化经营支撑力度。

We will promote overseas company informalization and intensify support for international operation.

4 分类推进生产企业信息化建设。

We will promote informalization construction of production companies by category.

5 建设供应链管理（SCM），拓展对外战略合作和增值服务。

We will build up supply chain management (SCM) and expand our strategic cooperation with overseas countries and value-added services.

6 提升信息化自主运维支撑能力。

We will improve independent operation and supporting capacity for informalization.

中钢经营管理对信息系统的依赖度已越来越大，大集中式的应用架构对信息安全运行的要求也越来越高。因此，“十二五”期间将遵循 IT 治理（战略一致、价值交付、资源管理、风险管理、绩效测评）理论体系，结合中钢自身特点，推动相关技术项目建设和加强配套管理措施，构建更稳定、更安全、更高效的信息化运维管理基础，进一步增强信息化自主支撑能力。

Operation and management of Sinosteel highly relies on information system. The requirements of safe information system brought by large-scaled integrated application architecture also become higher. Hence, we will follow the theory system of IT governance (uniform strategy, value delivery, resources management, risk management and performance assessment) during the “12th Five-Year Plan” period, promote relevant technological project construction and enhance supporting management measures according to our own characteristics. We will construct a safer and more stable and effective informalization system operation and maintenance foundation and further raise our independent supporting capability for informalization.



# 2

## 绿色服务链 Green Service Chain

中钢深刻认识到钢铁生产各环节对环境产生的负面影响，认为加强环境保护管理是公司的重要职责，也是公司管理体系的重要组成部分。有效的环境管理体系是改善环境是实现可持续发展的基本前提，公司鼓励利益相关方的广泛参与，持续改进公司的环境管理，致力于为钢铁工业和相关战略性新兴产业提供绿色服务链。

Sinosteel knows well the negative impacts of each process of iron & steel production on the environment. Sinosteel believes it is an important responsibility to enhance environmental protection management, which is a vital part of corporation management system. An effective environment management system is the basic precondition of improving environment and realizing sustainable development. Sinosteel encourages extensive participation of stakeholders and continuously improve the corporation's environment management, devoting itself to providing a green service chain for iron and steel industry as well as related strategic emerging industries.







# 环境管理

## Environment Management

### 环境保护相关制度

#### Environmental Protection Systems

中钢集团充分认识到节能环保是企业可持续发展的必由之路，坚持以科学发展观为指导，逐步建立健全节能环保管理体系，完善管理制度，依靠科技进步，提倡全员创新，通过进一步强化节能减排行业对标，坚持节能减排与发展相促进，助力企业实现绿色发展。

Sinosteel fully understands that energy conservation and environmental protection are inevitable approaches to realize sustainable development of the corporation. We will adhere to the Scientific Outlook on Development, gradually establish and improve a complete energy conservation and environmental protection management system. We advocate all staff to innovate with the help of scientific and technological advancement, further enhance observance of energy conservation and emission reduction standards, persist in mutual promotion between energy conservation & emission reduction and development, and facilitate green development.

### 绿色供应链责任

#### Green Supply Chain Responsibility

我们全面考察生产企业的供应商，调查其有无安全生产许可证、排污许可证，是否属于国家发改委等政府主管部门禁止或限制的行业范围，是否符合相关通知、公告中的行业准入条件等。

以责任采购为指导，努力实现采购资源和采购过程的“绿色化”，引导所属生产企业的“绿色生产”，从而打造钢铁行业的绿色供应链。

We comprehensively investigate production companies' suppliers about their safety production permit, pollution discharge permit, whether prohibited or restricted industry scope (by authorities, e.g. National Development and Reform Commission), and industry access conditions (provided in concerned notifications).

We will persist in responsible procurement, endeavor to realize green procurement materials and processes, lead green production of production companies and create a green supply chain of iron & steel industry.

### 节能环保三条工作主线

#### Three Main Jobs in Energy Conservation and Environmental Protection

我们制定了对生态环境“零伤害”的目标，并根据中钢生产企业节能环保管理现状和特点，制定了节能环保三条工作主线：

We set the objective of “zero hazard” on ecological environment and determined three main jobs in energy conservation and environmental protection on the basis of Sinosteel production companies' energy conservation and environmental protection situation and characteristics:



**1 加强重大污染源的监控、预警与管理，坚决杜绝重大环境污染事件；**  
To strengthen monitoring, pre-warning and management of major pollution sources and eliminate major environmental pollution events;



**2 将节能减排关口前移，扎实推进节能减排工作，努力使中钢节能减排指标、数据达到国内、国际同行业先进水平；**  
To raise even higher requirements on energy conservation and emission reduction, promote energy conservation and emission reduction work in a down-to-earth style, make all efforts to reach domestic and international leading level in the industry in terms of energy conservation and emission reduction index;



**3 积极争取国家节能减排政策支持，提高政策使用效率。**  
To win support of national energy conservation and emission reduction policies, and improve policy availability factor.

### 完善能源环保统计管理制度

#### Improve Energy and Environmental Protection Statistics Management System

为进一步加强能源环保统计管理，我们完善了能源环保统计管理办法，通过下发《中国中钢股份有限公司能源环保统计管理办法（试行）》，全面阐述集团对能源环保的统计要求，明确能源环保季报、半年报和年报制度，并新增“能源环保统计分析报告”和“重大污染源监控治理月报表”两项内容，使企业上报内容更及时，更具有可操作性。

In order to further enhance energy conservation and environmental protection statistics management, we improved energy and environmental protection statistics management methods and issued Sinosteel Corporation Limited Energy and Environmental Protection Statistics Management Methods (Trial). The Management Methods comprehensively described the Group's statistics requirement on energy and environmental protection, explicitly determined energy and environmental protection quarterly reporting, semi-annual reporting and annual reporting systems, and added “energy and environmental protection statistics analytical report” and “monthly report of major pollution source monitoring and control”, which made reporting more timely and operable.

### 加强环境事件应急管理

#### Enhance Environmental Emergency Management

2011 年在企业开展自查工作基础上，全面完成了对所属企业重点污染源的监控检查工作；强化污染源的档案化管理；督促企业按要求编制、完善污染源应急预案和环境事件应急预案，加强应急管理。

In 2011, following self-inspection, the Group comprehensively finished its monitoring and inspection over major pollution sources of subsidiaries, strengthened documentation management of pollution sources, urged companies to compile and improve pollution source emergency plan and environmental event emergency plan as required to enhance emergency management.





## 环保工作交流培训 Environmental Work Communication and Training

中钢重视所属企业管理能力的提升，为其搭建经验交流的平台，使所属企业之间资源共享，信息互通。集团不定期召开生产企业节能环保工作经验交流会，会上企业主管能源环保工作的部门负责人充分交流了各自的管理办法与经验，相互学习和借鉴兄弟单位的好经验和好做法，进一步提升业务素质和管理水平。

Sinosteel attaches value to the improvement of subsidiaries' management capability. It establishes experience communication platform for them, enabling subsidiaries to share resources and information. It also holds energy conservation and environmental protection experience communication meetings among production companies occasionally. At the meeting, heads in charge of energy and environmental protection fully share their management methods & experience and learn valuable experience & good practices from other companies to further improve their business competence and management level.

## 节约资源能耗 Save Resources & Energy Consumption



**坚持** 以科学发展观为指导，坚持节能减排与企业发展相促进。  
Adhere to business development keeping abreast with energy conservation and emission.



**强化** 节能减排行业对标，加强对污染源的治理。  
Intensify energy conservation and emission reduction benchmarking, as well as the treatment of pollution sources.



**推行** 清洁生产，开展能源审计。  
Promote cleaning production and conduct energy auditing.



**依靠** 科技进步，提倡全员创新。  
Rely on Sci-tech progress and advocate all-involvement innovation.

### 案例 CASE

集团荣获“2011 节能中国十大贡献单位奖”  
Sinosteel Group Won 2011 China Energy Conservation Top 10 Contribution Units

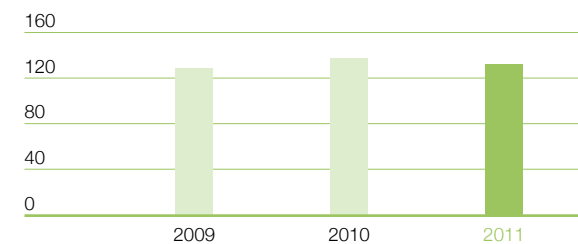
2010 年底，中钢集团万元产值综合能耗比 2005 年下降 **49%**，降幅超过中央企业平均水平 **28** 个百分点；二氧化硫排放量比 2005 年减少 **46%**，降幅超过中央企业平均水平 **10** 个百分点；化学需氧量排放量减少 **64%**，降幅超过中央企业平均水平 **28** 个百分点。由于良好的节能环保业绩，2011 年集团荣获“2011 节能中国十大贡献单位奖”。

At the end of 2010, the comprehensive energy consumption per RMB 10,000 output of Sinosteel Corporation dropped by 49% compared to that in 2005. This drop is 28% higher than average level of central enterprises; the exhaust of SO<sub>2</sub> reduced by 46% than that in 2005 with the drop 10% higher than average level of central enterprises; the exhaust of chemical oxygen demand reduced by 64% with the drop 28% higher than average level

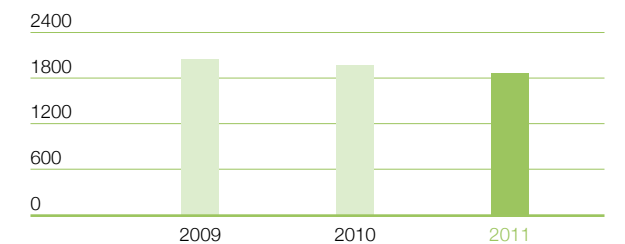
of central enterprises. Due to its excellent energy conservation and environmental protection performance, the Group won 2011 China Energy Conservation Top 10 Contribution Units.



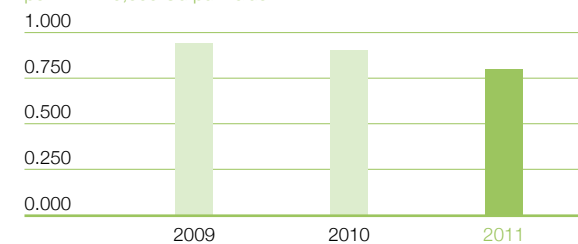
能源消耗总量  
Total Energy Consumption



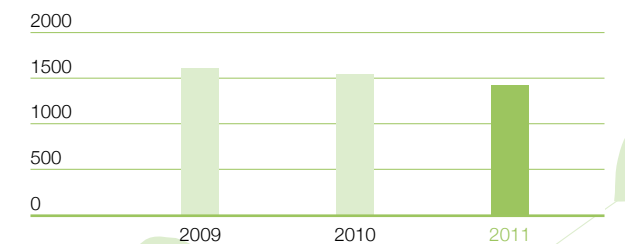
SO<sub>2</sub> 排放量  
SO<sub>2</sub> emission amount



万元产值综合能耗  
Comprehensive Energy Consumption per RMB 10,000 Output Value



COD 排放量  
COD Emission





## 多措并举，提高能源利用率

Take various measures to improve energy efficiency

2011 年，中钢邢机确定了全年降低能源成本大于 2000 万元的目标。

为最大限度地挖掘节能潜力，中钢邢机针对生产能源费用与办公用能费用组织开展了装备系统降本增效风险抵押承包活动，全年共完成降本增效费用 3380 万元；以管理与技术创新推动节能降耗工作，在生产过程控制中推行精益生产与准时化生产作业管理模式，通过对标不断优化操作过程，缩短操作时间，减少能源浪费，全年节省能源成本 779 万元；技术部门对生产工艺进行大胆创新，开展生产工艺优化，完成工艺技术创新 40 项，工艺节能实现降耗 937 万元；制定并实施了办公用能管理办法、热处理装炉量控制办法等多个专项制度，其中装炉量控制办法的实施，使公司热处理能耗下降 2%。对办公区域用能进行严格管理与考核，办公用能同比下降 171 万元；公司完成了全部职工浴室的感应节水改造后，年节水 8 万吨，蒸气用量年减少 2678 吨，节省费用 100 万元，节约能耗 280 吨标煤。统计显示，2011 年中钢邢机吨轧辊产品综合能耗指标较承诺目标降低 10.25%，圆满完成年度计划。

In 2011, Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. set the goal to reduce energy cost by more than RMB 20 million.

To explore the potential of energy saving to the maximum, Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. carried out the campaign of contracting cost reduction and efficiency increase in relation to energy consumption of production workshop and office, finally reducing cost by RMB 33.80 million in the year; it promoted energy conservation and emission reduction by management improvement and technology innovation, popularized lean production and JIT production, used benchmarking to optimize operation process, and reduced operating time and reduce energy waste, saving energy cost by RMB 7.79 million; technological departments made bold innovation on production process and optimize process, realizing 40 items of technology innovation and reducing energy cost by RMB 9.37 million. We also formulated special rules such as those on office energy consumption and control of charge batch in heat treatment, reducing the energy consumption for heat treatment by 2%. We performed strict management and evaluation on energy use in office areas, reducing the energy cost by RMB 1.71 million year on year. We conducted induction water-saving renovation in company-wide showering houses, saving water 80,000 tons per year, steam consumption by 2,678 tons, cost by RMB 1 million and energy consumption by 280 tons of standard coal equivalent. According to statistics, the comprehensive production energy consumption index of Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. achieved in 2011 was 10.25% lower than the promise made at the beginning, realizing the annual plan.



技术人员测试改造项目，提高燃气锅炉的余热利用率，最大限度利用能源。  
Technicians are testing renovation projects to improve the utilization rate of excess heat in gas-fired boilers and maximize the energy available.

## 利用新技术，节能降耗增效

Use new technologies in order to save energy, reduce consumption and increase efficiency

中钢各矿山企业根据自身特点，从细微处入手，引进新工艺、新技术，成功提升了生产工艺和装备水平，节能降耗成效显著。2011 年，已实现正常生产的中钢山东矿业、中钢富全矿业、中钢锡林浩特萤石公司三家企业，原矿生产电耗为 27.36kwh/吨，较上年减少 1.23kwh/吨，下降 4.3%。

2011 年年初，中钢山东矿业对供矿系统中破碎机给料系统及粉矿分料装置进行技术改造，公司技术人员根据物料及系统运行特点，将细碎振动给料机改为电液动扇形闸门。随后，将粉矿分料装置四通分料器中内侧分料的 2 台液压推杆翻板改为只有 1 台从下侧分料的推板。改造完成后，系统结构简单，四通分料器运行顺畅，破碎机给料稳定，实现了破碎机挤满给料要求，且改造后给料系统无运动部件，节约了电能和给料机材料消耗，节省了维修成本。

此次改造工作投资成本小，回收快，成功实现了节能降耗增效目标。节约电能消耗。改造后，省掉了给料机上的 4 台 3.2KW 振动电机，每年可节约电费约 3.87 万元。节省维修材料及人工费。振动给料机使用的衬板为锰钢板，每月更换约 0.63t，按照市场价 6000 元/吨计算，每年可节约材料费约 4.54 万元，加之其他材料消耗及人工费，每年可节约 5 万元左右。减少皮带及托辊的磨损。采用电液动扇形闸门溜槽给料，降低了给料系统中物料下落的高差，从而减少了物料对皮带及托辊的冲击，增加了其使用寿命。同时，满足了破碎机挤满给料要求，使破碎机实现层压破碎，从而使产物粒度更加均匀，降低了下一工序磨选工序的材料消耗及能耗。

中钢山东矿业新技术的应用，成功实现了节能降耗增效目标，每年直接经济收益达 8.87 万元，更为重要的是提高了供矿系统的处理能力。

Taking into account their own conditions and paying attention to particulars, the mining enterprises of Sinosteel introduced new process and technologies and higher-level equipment to make improvement in these aspects, with noticeable results in energy saving and consumption reduction. In the year 2011, three enterprises which achieved normal production, including Sinosteel Shandong Mining Co., Ltd., Sinosteel Shandong Fuquan Mining Development Co., Ltd. and Sinosteel Xilinhot Fluorite Co., Ltd., achieved the power consumption of 27.36kwh/t for raw ore production, reduced by 1.23kwh/t (4.3%) compared with the previous year.

At the beginning of 2011, Sinosteel Shandong Mining Co., Ltd. conducted technical renovation to feeding system of crushers and depilers used for fine ores in the ore supplying system. The company's technicians took into consideration the characteristics of materials and system running, and changed the gate of the vibrating feeder into an electro-hydraulic sector one. After that, they also made changes to the four-way distributors by simplifying its structure to make it operate smoothly. Now the crushers of the company feed stable and fully, and reach the feeding requirements. Above all, the changed feeding system has no moving elements, thus saving electric power and material consumption as well as maintenance cost.

This upgrading was a low-cost and short-period pay-back. We realized energy conservation, consumption reduction and efficiency increase. This change eliminates four 3.2KW vibrating motors on feeder, thus reducing electricity bill of RMB 38,700 per year. The liner used by the vibrating feeding machine is manganese steel plate, whose change every month needs 0.63t, i.e. RMB 45,400 per year calculated at the price of RMB 6,000 per ton, plus other materials and labor cost. The saved cost can be up to RMB 50,000. The abrasion of belts and carrier rollers were reduced. By using electro-hydraulic sector gate to feed, the vertical distance of materials falling is reduced and thus mitigating the impact of materials on belt and carrier rollers, increases their service life. At the same time, the requirement for filling the crusher with mineral is met, so a crusher can crush products more uniformly by laminating crush and the material and energy consumption in the coming steps are reduced.

By introducing new technology, Sinosteel Shandong Mining Co., Ltd. realizes the goal of energy saving, consumption reduction and efficiency increase, with the direct economic benefit of RMB 88,700 each year and improving the capacity of mining machinery.



## 推行绿色办公制度，推动降本增效成果

Promote green offices and drive cost reduction and efficiency increase

中钢耐火公司是 1958 年建厂的老国有企业，受条件所限，大多数生产现场照明还延用能耗高、寿命短、光衰快的白炽灯，既影响照明效果，又造成电能严重浪费。近年来，公司开展了以“绿色照明”为主题的节能降耗活动，实施节能灯和更换天窗利用自然光照明的工作，收到了显著的节能效果。

改造前，公司主体分厂等 16 个单位一直延续采用的白炽灯数量共有 2924 个，其中 100 瓦以上的 2398 个，150—500 瓦以上的占 58%，以及 365 个诸如高压汞灯、金卤灯等高能耗灯具。经过充分的调查研究，公司决定在照明条件不好、现场面积最大的硅质分厂进行照明系统和天窗采光板的改造试点，并逐步进行推广。随后，公司投资 26000 多元更换了节能灯具，改造后经测试和计算对比，照度提高 5—70LX，是改造前的 1.4 倍—7 倍，电耗平均降低 61.7%，每年可节约电费 5 万多元。中钢耐火的实践充分证明：“绿色”先行，照明也能节能降耗。

Sinosteel Refractory Co., Ltd. is a long-established state-owned enterprise built in 1958. Limited by the conditions, most of lighting in workshops was still incandescent lamps featuring high electricity consumption, short service life and big light attenuation. This resulted in poor illumination and electricity waste. Over recent years, the company has promoted energy conservation and consumption reduction themed with “green lighting” by using energy-saving lamps and skylight, having noticeable benefits.

Before changing, the 16 units under the company such as the main factory used 2,924 incandescent lamps, including 2,398 lamps of more than 100 watt each and with those of more than 150-500 watt accounting for 58%, plus 365 high energy consumption lamps such as high-pressure mercury lamps and metal halide lamps. With in-depth survey, the company decided to take trial of changing lighting systems and skylight in the silicon factory which had poor lighting conditions and the largest workshop area, and promoted the practices in other parts of the company. What's more, the company spent RMB 26,000 to replace the old lamps with energy-saving lamps, increasing illumination by 5-70LX, 1.4 -7 times more than that before replacement. The 61.7% reduction of electricity consumption may help save electricity bill of more than RMB 50,000 per year. The practices made by Sinosteel Refractory Co., Ltd. proves that “green lighting” does well to energy saving and consumption reduction.

为降低用电成本，中钢西重制氧系统探索“间断制氧”节电运行方式，尽可能把停机时间安排在用电的早高峰，既保证生产供氧纯度需求，还要缩短复产时间以免影响供气，经摸索改进，月节约电量 13.2 万度，降低电费成本约 8.448 万元，以此推算一年可节电 156 万度，降低成本 99.8 万元。

To reduce electricity cost, the Oxygen Generating System of Sinosteel Xi'an Heavy Machinery Co., Ltd. explored the operation way of “intermittent oxygen generation”, trying to arrange outage at the morning peak of power use. This can guarantee the needs for the purity of oxygen required for production and reduce the time to recovery avoiding oxygen supply being affected. This practice results in electricity reduction of 132,000KWH per month and electricity bill of RMB 84,480. Based on this calculation, 1.56 million KWH can be reduced, or RMB 998,000 can be saved a year.

## 重视发展循环经济

Give priority to recycling economy

### 案例 CASE

中钢天澄携手杭州亚太举办国际环保清洁能源技术讲座与培训  
Sinosteel Tiancheng, in collaboration with HRC, Holds International Clean Energy Technology Workshop & Solar Power Technology Training

2011 年，中钢天澄携手亚太地区小水电研究培训中心（由我国政府和联合国开发计划署及联合国工发组织合作成立，简称：杭州亚太）在武汉举办了 2011 年国际环保清洁能源技术讲座暨太阳能技术培训。这是中钢天澄继 2009 年、2010 年与杭州亚太两次合作开展针对亚洲、非洲和太平洋地区国家的专业培训和讲座交流后的第三次合作。

来自肯尼亚、马拉维、加纳、蒙古、缅甸、柬埔寨等二十多个国家的四十多名工程技术人员和官员参加了本次培训。中钢天澄派专家在会上分别做了题为《中钢天澄环保产业发展以及优势脱硫技术》和《光伏技术与应用》的专题讲座，展示了公司在发展循环经济方面的竞争力。

In 2011, Sinosteel Tiancheng Environment Protection Science & Technology Co., Ltd., together with Hangzhou Regional Center for Small Hydro Power (hereinafter referred to as HRC, an organization co-sponsored by the United Nations Development Program, United Nations Industrial Development Organization

and the Chinese government), held an international clean energy technology workshop and solar power technology training in Wuhan. This was the third consecutive year for the two parties to cooperate to offer lectures and professional trainings targeted at Asian, African and Pacific countries.

Over 40 engineers and officials from more than 20 countries, including Kenya, Malawi, Ghana, Mongolia, Burma and Cambodia, attended the training. Experts from Sinosteel Tiancheng gave two presentations titled as Environmental Protection Industry Development in Sinosteel Tiancheng and Its Advanced Desulfurization Technology, and Photovoltaic Technology and Its Application, displaying the competitiveness of the company in developing recycling economy.



技术讲座培训现场  
Steel is a profound understanding of the negative.

## 重视水资源管理

Attach Importance to Water Resource Management

面对日益严峻的水资源形势和可持续发展的要求，立足技术进步，加大水资源的统筹循环利用，已成为生产企业提升持续发展能力的必然选择。中钢所属生产企业依靠科学管理，巧用新工艺、新技术，在合理配置水资源、降低生产用水消耗、减少污水排放等方面取得了积极进展，为改善生态环境，促进可持续发展作出了自己的贡献。





Faced with increasingly dire water resources and requirements of sustainability development, and enhancing the integrated utilization of water resources in a recycled way based on technology progress has become an inevitable choice for production enterprises to improve sustainability. Production enterprises under the leadership of Sinosteel have made positive progresses in allocating water resources reasonably, reducing consumption of production water and reducing effluent discharge by relying on scientific management, new technologies and new processes, making their own contributions to eco-environmental improvement and sustainable development.

## 案例 CASE

### 中钢邢机喷淬水系统改造年节水 2 万余吨 Sinosteel Xingtai Machinery Reduces Water by over 20,000 Tons through Replacing Quenching System

为更好地落实国家节能减排政策，节约宝贵的水资源，同时有效降低生产成本，中钢邢机针对企业重点设备实施的“喷淬机废水回收系统”技术改造项目，自 5 月份投入使用以来，截至 2011 年底，共节水 11000 吨。

喷淬工序是中钢邢机热处理工艺的环节之一，每次喷淬耗水约 20 吨。由于喷淬工艺对水质的特殊技术要求，喷淬后的废水不能再次循环使用。为了对废水净化后继续使用，2011 年 4 月，企业组织相关技术人员成立专题组，经反复勘测现场和多方研究，创新实施了“开发水系统串联使用”项目，将喷淬后废水经过简单过滤后回收起来循环使用，由此杜绝了喷淬水一次性使用的资源浪费。

In order to carry out national policy on energy conservation and emission reduction, save valuable water resources and reduce production cost efficiently, Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. implemented the technology upgrading project of “quenching water recovery system” for key equipment in May 2011. By the end of 2011, 11,000 tons of water was saved.

Quenching is one of heat treatment processes in Sinosteel Xingtai Machinery & Mill Roll Co., Ltd., consuming about 20 tons of water each time. Before upgrading, the quenching water could not be recycled and reused due to the special technical requirements for the water quality. In order to reuse the water, the company formed a task force in April 2011 to implement the project of “quenching water recovery system (developing water usage in series)” through in-depth survey and analysis. In doing so, the waste water after quenching is filtered and reclaimed for reuse, eliminating the waste of quenching water.



喷淬水系统循环水使用的创新举措，大幅降低了新水采集量。经统计，每年可节约新水 2 万余吨。  
The innovative recycled use of quenching water helps significantly reduce new water consumption. According to statistics, over 20,000 tons of water can be saved every year.

## 案例 CASE

### 中钢吉炭循环用水再出新招 Sinosteel Jilin Carbon's New Move to Recycle Water



中钢吉炭厂区不断完善循环用水系统  
Sinosteel Jilin Carbon Continuously Upgrades Recycling Water System

中钢集团吉林炭素股份有限公司十分重视节水工作，2010 年投资 1600 万元新建一座总污水处理站，用于净化生产和生活废水。公司对主要用水设备进行了节水改造，将压型分厂二台煅烧炉和石墨化分厂三台石墨化炉变压器间接冷却水，通过过滤、凉水等工艺处理后重复使用，每年少用新水约 300 万吨。通过提高用水计量装备水平、加大用水考核工作力度等措施，公司充分调动了各分厂、车间做好节水工作的积极性和主动性，取得了较好的节水效果。

通过实施以上措施，2011 年公司同比少用新水 437 万吨，同比下降 45%，降低生产成本约 400 万元，工业水循环利用率由 2010 年的不足 20% 提高至 60% 以上。到 2011 年末已经提前完成了吉林市政府下达的单位工业增加值用水量下降 30% 的“十二五”节水目标任务。

Sinosteel Jilin Carbon Co., Ltd. has always attached importance to water conservation. In 2010, they invested RMB 16 million to build an effluent treatment station for purification of waste water from production and domestic life. The company remodeled their equipment using water, i.e. two calcinators in Profiling Factory and three graphitizing furnaces in Graphitizing Factory. Water there now can be recycled through filtering and cooling, and so 3 million tons of water can be saved every year. By taking such measures as upgrading water meters and intensifying water consumption evaluation, the company mobilized the enthusiasm and initiatives of subsidiary factories and workshops to save water and received satisfactory results.

These measures reduced the use of water by 4.37 million tons in 2011, down 45% year on year, reducing production cost by RMB 4 million and increasing water reuse rate to over 60% from less than 20% in 2010. The company was able to meet the targets set by Jilin Municipal Government to reduce water consumption per unit of value-added industrial output by 30% during the “12th Five-year Plan” period.



## 案例 CASE

### 中钢富全矿业“三项措施”缓解选厂用水问题 Sinosteel Fuquan Mining Addresses Water Problem of Beneficiating Plant with Three Measures

2011年，中钢富全矿业生产建设进入关键阶段，试生产工作日益深入，选厂生产逐步走向正轨。但由于夏季天气干旱等原因限制，选厂缺水成为限制生产稳步发展的突出问题。为保证试生产的顺利进行和全年计划的如期完成，中钢富全矿业采取“三项措施”缓解选厂用水问题。

**建设辅助设施，保证用水回收。**公司在尾矿库建设截流坝，挖掘四条溢流槽共500余米，与回水池相连，开凿两口水源井以补充用水不足，不断增加回水量。

**合理安排放矿，节约水资源。**公司尾矿库使用实行分区使用，以最大限度利用尾矿库的有限空间，在尾矿向指定区域排放的同时，另一区域发挥溢水、储水作用。

**强化生产组织，提高生产用水利用率。**加强各部室、施工单位之间的配合和协调，延长选厂开机时间；进行用水工艺改造，实现交替使用，解决了用水临时匮乏的问题。

经过努力，选厂生产缺水难题得到大大缓解，试生产工作正稳步推进。

2011 was critical for Sinosteel Shandong Fuquan Mining Development Co., Ltd. to be built with trial production going forward and its beneficiating plant moving towards the right track. But due to dry weather in summer, water shortage became a bottleneck to limit its development. To ensure the smooth trial production and the realization of whole year plan, Sinosteel Fuquan Mining took three measures to mitigate the water problem.

**Building auxiliary facilities to reclaim water** – The company built a cut-off dam in the tailing pond and dug four overflow launders totaling over 500 meters in length and connecting to water-reclaiming tank. Two wells were also dug to supplement water needed and increase reclaimed water.

**Arranging ore drawing and save water resources** – The tailing pond was zoned to maximize the space in the pond. When the tailing is discharging to the designated zone, the other zones play their role in water overflowing and storage.

**Intensifying production organization to raise the use rate of production water** – They strengthened the collaboration and coordination between departments or divisions and prolonged the machine operating hours of the beneficiating plant; they changed the water-using process and realized alternating use, thus solving the problem of temporary water shortage.

With these efforts, the water shortage faced by the beneficiating plant was significantly mitigated and trial production moved forward steadily.



## 降污减排

### Reduce Pollution and Carbon Emission

## 应对气候变化，走低碳发展之路

### Address Climate Change and Take the Road of Low-carbon Development

我们认为中钢实现可持续发展应走低碳发展之路，重点要突出节能环保工作，应对气候变化。近年来，我们从生产管理工作的实际入手，深挖生产工序潜能，依靠思维创新、技术创新和工艺创新，推动落后工艺和高能耗设备的更新改造，提高产品质量，实现节支降本，为提高企业可持续发展能力发挥了重要作用。

It is our opinion that Sinosteel should take the road of low-carbon development in order to achieve sustainable development, with focus on energy conservation, environmental protection and addressing climate change. Over recent years, we started with strengthening production management, tapped into the potential of production processes, relied on innovation in thinking, technology and processes and implemented the replacement and upgrading of laggard processes and high energy-consuming equipment so as to improve product quality, save expenditure and reduce cost. All of these have played important roles in raising our capability for sustainable development.

### 中钢邢机 ——21种定径辊环工艺更新后更耐磨

#### Sinosteel Xingtai Machinery & Mill Roll– 21 Kinds of Sizing Rolls Are More Wear-resisting with New Technology

中钢邢机21种无缝轧机用定径辊环产品从2011年2月份开始实施新的工艺后，新工艺给产品带来了更为优化的组织性能，新工艺产品的孔型轧制面比以往更耐磨。数据显示，21种产品的轧制面硬度提高均在3度以上。

Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. started using new technologies in Feb, 2011. to produce 21 kinds of sizing rolls for seamless-tube rolling mill. The new technologies optimized the performance of their products which became more wear-resisting. The data indicates that the hardness of 21 kinds of sizing rolls is increased over 3 degrees.

The 21 kinds of sizing rolls had the diameter of 300-800mm. The new technology was designed to revolutionize the old processes by accelerating curing speed of casting pieces, refining the texture of the surface and increase the durability of the finished products.

After introducing new processes, the supporting tools also underwent full replacement accordingly. In addition to the optimization of product performance, casting gross-net ratio was also lowered up to 10%. Other key indexes such as cutting tool consumption, manufacturing cycle were also raised. Production reports showed that the performance improvement and the reduced cost per ton of the 21 kinds of sizing rolls were higher than expected. Now Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. is preparing for the expansion of the new technology to its over 100 other sizing rolls.

中钢邢机此次更新工艺的21种定径辊环产品，直径规格在Φ300—800mm之间。新工艺，是公司特别针对这部分定径辊环的成品形状和使用实际，在原工艺基础上进行的一次革命性优化设计，可加快产品铸件凝固速度，使产品外斜面工作层的组织更细化均匀，进而使成品孔型轧制面的耐磨性更高。

新工艺实施后，配套的工具工装也相应进行了全面的更新换代。此外，产品除了组织性能得到优化提升外，产品的铸造毛净比也得到降低（毛净比最高降幅可达10%），产品冷加刀具消耗、制造周期等一系列影响成本的关键性指标也相应改观。从生产情况看，这21种定径辊环产品的性能提升度和吨成本投入降幅均比前期预计的要可观。目前，中钢邢机已为下一步在全部百余种定径辊环产品中广泛推广做准备。





## 中钢山东矿业——选矿车间中细碎改造降本成效显著

Sinosteel Shandong Mining – Achieving Considerable Reduction of Cost through Technology Upgrading in Beneficiating Plant

在生产过程中，中钢山东矿业发现原有选矿破碎系统生产设计无法满足生产需要，经过严格的生产计算和考察，公司决定采用3台山特维克CH660型圆锥破碎机替换原来的3台圆锥破碎机。

经过9个多月的试运行，该设备运行稳定，筛分效率大幅提高，中碎产品中合格粒级增加，降低了二次循环破碎的负荷，破碎系统生产能力由272吨/小时提高到400吨/小时以上，解决了破碎能力不足导致磨选系统因“吃不饱”而无法连续运转的难题，大大提高了磨选系统设备运转率。同时，降低了给矿粒度，由原来的18mm降低为12mm，提高了磨选系统球磨机台效，使球磨机处理量提高了5%。此外，由于产品粒度变小，矿物解离度增大，使干抛和湿式预选甩尾量增加，实现了能抛早抛、多碎少磨的工艺要求，降低了磨选成本。设备装机总功率的降低使中细碎破碎矿石的单位电耗大大下降，每月可节约电费6.5万元，节能降耗成效显著，为中钢山东矿业全面达产目标的实现奠定了坚实基础。

In their production, Sinosteel Shandong Mining Co., Ltd. found that the previous crushing system for beneficiating could not meet the actual needs. After rigorous calculation and survey, the company decided to replace the old three cone crushers with three new ones of CH660 produced by Sandvik.

After the nine-month-long trial operation, the three new cone crushers worked well, with screening efficiency increasing efficiently and more medium granules meeting the requirements and reducing the workload of the secondary cycle crushing. The crushing capability was raised from 272 tons/hour to 400 tons/hour, thus solving the problem of grinding system “starving” due to low crushing capability, and improving the operating rate of the grinding system. At the same time, the feeding granule size was reduced from 18mm to 12mm, thus improving the efficiency of ball grinders by raising the handling capacity by 5%. In addition, thanks to the decreased granule sizes and increased degree of dissociation, higher requirements such as crushing more and grinding less were met and grinding cost was reduced. Furthermore, the decreased installed power of equipment led to the considerably decreasing electricity consumption per unit in grinding rocks, reducing electricity bill by RMB 65,000 per month. The remarkable results in energy saving and consumption reduction laid a solid foundation for Sinosteel Shandong Mining Co., Ltd. to realize its preset goals.

## 中钢富全矿业——井下中央泵房自动化改造 实现无人高效运行

Sinosteel Fuquan Mining – Achieving Unmanned Efficient Operation by Automating Central Pump Room Underground

中钢富全矿业改造井下中央泵房综合自动化系统，实现自动控制。综合自动化系统按无人值班设计，能保证在无人值班的条件下高效、可靠运行。

改造前，中央泵房设备运行与管理采用人工操作方式，操作过程繁琐、水泵启动时间长、系统运行效率低，无法满足“提高生产效率、降低生产成本”的要求，因此实现中央泵房自动化控制显得十分必要。

Sinosteel Fuquan Mining Development Co., Ltd. remodeled underground central pump room to achieve automation. The integrated automation system was designed for the central pump room to unmanned operation efficiently.

Before remodeling, the operation and management of the central pump room were all done manually. It took complicated process and long time for pump to start, and the whole system operated low efficient and cannot meet the requirement of “improving productivity and reducing production cost”. Thus the automation of the central pump room was quite necessary.

中央泵房自动化监控系统，通过监测水仓水位和其他参数，根据水仓水位的高低、水泵状态和用电等因素，合理调度用水，自动准确发出启、停水泵的命令及控制管路上的电动闸门，控制四台水泵运行。系统直观、形象、实时地反映系统工作状态以及水流量、电机工作电流、排水管流量等参数，并通过通信模块与综合监测监控主机实现数据交换，方便地掌握整个中央水泵系统的工作情况。

综合自动化实施后，设备的安全稳定性大大提高，一方面实现了流量保护；另一方面能够有效监控水泵电机过电流、漏电、低电压等故障，并参与控制。

The automated monitoring system of the central pump room can adjust the water according to water level, pump conditions and electricity availability, issue order to start/stop pump and control the electric valves on pipelines and control the operation of four pumps. The system can show the water flow, motor's electric current and flow in the pipeline in an intuitive, visualized and real-time manner as well as exchange data through communication module and comprehensive monitoring. This provides a whole picture of the whole central pump system.

Since the integrated automation was implemented, the safety and stability of equipment were considerably improved. It does not only help achieve flow protection but also efficiently monitor the over-current, electric leakage, low voltage and other failures, and exercise control.

## 加强重大污染源监控和治理

Intensify Monitoring and Treatment of Major Pollution Sources

为加强重大污染源的监控与治理，杜绝重大环境污染事件，中钢定期组织开展环保督查活动。对发现的污染隐患要求企业随时发现随时整改，不能马上整改的企业要按要求确定整改责任人，编制突发环境事件应急预案，限定期限落实整改方案，力求对企业重大污染源进行全面严密的监控和积极的治理。

In order to intensify major pollution sources monitoring and treatment, and eliminate serious environmental pollution accidents, Sinosteel carries out supervision of environmental protection on a regular basis. When hidden hazards of pollution are found, we require the companies involved to rectify and get rid of the hazards as early as possible. We prepared environmental emergency response plan, set a time frame to implement the rectification plan and sought to perform all-round rigorous monitoring and treatment of major pollution sources.





## 重视降污减排科技创新 Give Priority to Technology Innovation on Reducing Pollution and Emission

钢铁、电力工业作为基础产业，是国家经济发展的支柱产业之一，对我国经济建设具有巨大的推动作用。但其生产工序多、流程长、设备规模大、资源密集、能源消耗大等特点，也造就了它环境污染严重的特性，节能减排任务十分艰巨。如何从末端治理转向源头治理，从单一发挥除尘器功能向系统集成和技术创新上找出路，实现钢铁、电力工业走向可持续发展道路的目标，成为中钢人义不容辞的责任。2011 年，公司继续围绕缩短流程、降低投资、节能、高效、减轻环境污染开展了一系列技术升级和产品创新。

Steel and electric power industries are the foundation and mainstay industries for national economy, playing vital roles in driving economic development. But the complicated and prolonged processes, large-scale facilities, intensive resources and large consumption of energy make them pollution sources, facing the arduous task of energy saving and emission reduction. How to shift from end-of-pipe treatment to the control from the beginning, and find solutions shifting from simply serving as a dust catcher to system integration and technology innovation, in order to achieve their sustainable development? This task is incumbent upon Sinosteel. In 2011, Sinosteel continues to carry out technology upgrading and produce innovation focusing around simplifying processes, reducing investment, saving energy, improving efficiency and mitigating environmental pollution.

### 案例 CASE

#### 优化生产工艺，促进节能减排 Optimize Production Process and Promote Energy Saving and Emission Reduction

耐火材料行业属于高耗能行业，每年要消耗大量的电能、热能、原材料、水等资源。在当今国家大力倡导节能减排的形势下，中钢洛耐院准确把握时机，从 2006 年起在节能减排工作中先后实施了窑炉城市煤气化改造工程项目、蒸汽锅炉改造项目、节能灯改造项目、碳化硅一、二期窑炉尾气治理项目。

2006 年至 2011 年，中钢洛耐院实现节能量 2 万余吨标准煤，将万元产值能耗由 2007 年的 0.2601 吨标煤 / 万元降低到 2011 年的 0.1347 吨标准煤 / 万元；COD、SO<sub>2</sub> 等主要污染物排放量减少 30% ~ 40%，超额完成了每年的节能减排目标任务。

投资约 1100 万元的窑炉城市煤气化改造工程项

Refractory industry is high energy-consuming industry where large amount of electric and heat power, raw materials, water and other resources are consumed every year. In response to the calling of saving energy and reducing emission advocated by the state, Sinosteel Luoyang Institute of Refractories Research Co., Ltd. seized the opportunity by implementing kiln gasification upgrading project, steam-fired boiler project, energy-saving lamps project, 1st and 2nd carborundum kiln tail gas treatment project from 2006.

From 2006 to 2011, Sinosteel Luoyang Institute of Refractories Research Co., Ltd. saved about 20,000 tons of standard coal equivalent, reducing the energy consumption per RMB 10,000 output from 0.2601 ton of standard coal equivalent to 0.1347 ton in 2011; major pollutants such as COD and SO<sub>2</sub> were reduced by 30%-40%, over-fulfilling the target of energy saving and emission reduction.

The Kiln Gasification Upgrading Project with an investment

目，自 2006 年开始筹划和设计方案，2007 年共完成了 7 座窑炉和 7 台热风炉的城市煤气化改造，2008 年至 2011 年又对部分燃气窑炉进行了节能改造，提高了窑炉的保温效果。燃油窑炉在改造前平均每窑约消耗 5 吨柴油，折合 8.75 吨标准煤；改造后使用煤气窑炉烧砖，平均每窑消耗 1 万立方城市煤气，折合 5 吨标准煤，降低能耗 42.3%。按照每年烧窑 200 次计算，每年可节省能耗 750 吨标准煤。

从中钢洛耐院窑炉城市煤气化改造工程项目的实施中可以发现，节能减排和生产工艺改进是紧密相联、相辅相成的，节能减排是生产工艺改进的方向，推进生产工艺的改进升级。我们坚信，只有持之以恒地坚持节能减排和低碳经济、循环经济的发展方式，才能不断推进经济实现又好又快发展，实现社会的和谐进步。

amount of RMB 11 million was initiated in 2006 and in 2007 seven kilns and seven hot blast furnaces. From 2008 and 2011, some of gas-fired furnaces were upgraded to save energy, improving the insulation results of kilns. Before upgrading, diesel-fired kilns consumed 5 tons of diesel or 8.75 tons of standard coal equivalent. After upgrading, each of the gas-fired kilns consumes 10,000 cubic meters of gas, or 5 tons of coal equivalents, reducing energy consumption by 42.3%. Based on 200 times a year, 750 tons of coal equivalents can be saved every year.

The kiln gasification upgrading project implemented by Sinosteel Luoyang Institute of Refractories Research Co., Ltd. tells us that energy saving and emission reduction are closely related to technology upgrading and they supplement each other. The former represents the direction of the latter and push forward the latter. We strongly believe that only through persistently sticking to the practices of saving energy and reducing emission to promote low-carbon economy and recycling economy can we achieve fast and sound development of national economy and the harmonious society.



改造后在窑炉里烧好的刚玉砖  
Corundum bricks fired by the upgraded kilns



## 矿区生态保护

### Ecological Protection in Mining Areas

#### 矿区生态保护

##### Ecological Protection in Mining Areas

中钢各个矿区高度重视矿区生态保护工作，严格按照国家和地方相关部门的有关规定，切实抓好矿区生态治理和环境保护工作。在矿区开发过程中，坚持“减少建设用地、少占用基本农田”的原则，优化矿区生产、生活、办公场区布置，仅中钢富全矿业就累计减少占用基本农田约 450 多亩。

Sinosteel has always attached much importance to ecological protection in mining areas by strictly following relevant rules and regulations at the state and local level to conduct ecological treatment and environmental protection. In the process of mining area development, we adhere to the principle of “reducing construction land and basic farmland occupation”, and optimize the arrangement of production, living and office areas of the mining areas. Taking Sinosteel Shandong Fuquan Mining Development Co., Ltd. for example, it reduced the basic farmland occupation over 450 mu in total.

在印尼镍矿项目开发中，公司认真遵守当地法律法规，保护资源的有序开发利用，维护区域生态系统的平衡繁茂，为企业的可持续发展创造优质的外部环境。2011 年 10 月 24 日，印度尼西亚中苏拉威西省省长 MR. Longki 访问中钢，对中钢在印尼积极履行社会责任的做法给予高度评价，并表示将继续在基础设施建设、村民权益协调等方面给予支持，实现共赢发展。

When developing the nickel mine in Indonesia, Sinosteel abided by the local laws and regulations, tapped the resources in an orderly way and maintained the balance of local ecological system in order to create a favorable external environment for sustainable development. On Oct. 24, 2011, Mr. Longki, the governor of Central Sulawesi, Indonesia, visited Sinosteel. He spoke highly of Sinosteel fulfilling social responsibilities and expressed their willing to give support in infrastructure building and villagers' interests bargaining. All of these helped achieve a win-win situation.



中钢印尼公司高度重视矿区生态保护  
Pt. Sinosteel Indonesia attaches great importance to ecological protection in mining area.



MR. Longki 省长到中钢总部访问交流  
Mr. Longki, governor of Central Sulawesi visited Pt. Sinosteel Indonesia.

#### 案例 CASE

##### 中钢锡林浩特萤石公司和谐促生产

Sinosteel Xilinhote Fluorite Advances Production through Harmony

2011 年，中钢锡林浩特萤石公司投资近 80 万元，对接手企业历史遗留的地质环境问题进行了首期治理恢复，共回填、覆土 1200 立方米，恢复植被 1.7 平方公里，维护了矿区周围的生产作业环境和草原生态环境。同时开展矿区绿化，共栽种各类乔木、灌木 4199 棵，其中栽种银中杨 169 棵，榆叶梅 130 棵，榆树 3900 棵，改善了办公生活环境。此外，公司不断吸纳地方富余劳动力加入到矿山队伍建设中来，帮助周边农牧民解决制约生产、生活的用电瓶颈问题，用实际行动为创建和谐社会做出了积极贡献。

In 2011, Sinosteel Xilinhote Fluorite Co., Ltd. invested nearly RMB 800,000 to carry out the first phase of recovering the geological environment of a historical legacy. They backfilled soil by 1200 cubic meters and recovered vegetation by 1.7 square kilometers in order to maintain the mining production environment and ecological environment on the grassland. They also carried out afforestation program in the mining areas, planting a wide range of arbors and shrubs totaling 4199, including 169 populus alba, 130 prunus triloba, and 3900 elms to improve the office surrounding environment. In addition, the company also employs local labor force to join the mining, helps peasants and herdsmen to solve the bottleneck of electricity needed for production and daily life. These have made positive contributions to creating a harmonious society.



中钢锡林浩特萤石公司为牧民安装的变压器  
Transformer installed by Sinosteel Xilinhote Fluorite Co., Ltd for local herdsmen.





## 重视矿区保育，注重尾矿回水管理 Intensify mining area conservation and management of tailings recycling water

中钢各矿山企业在生产过程中，将尾矿库中的生产废水回流，在选厂进行二次再利用，全部回收利用（不考虑自然蒸发、地渗等因素）。尾矿水的循环再利用，既可以缓解选厂水资源短缺的矛盾，又可以解决环保安全方面的问题。2011 年，中钢赤峰矿业尾矿库利用回水泵回水，有效节省了能源并保护了环境。为尽量提高回水率，减少尾矿水的排放，中钢赤峰矿业着手对尾矿库回水管线进行改造，利用自流回水方案代替回水泵回水，不仅回水可达到 24 小时不间断运行，而且综合回水量可达到 131.4 万立方米，每年可多回水 22.4 万立方米，减少新水使用万立方米，节约回水泵动力费、水资源费、材料备件费等直接费用 70 多万元。另外，由于尾矿库回水稳定，大幅减少了隔膜泵、环水泵、磨矿、浮选频繁操作导致的回收率降低，有利于创造更大的经济效益。

The mining enterprises of Sinosteel recycle the waste water in the tailing pond from production, so as to reuse all of the water in beneficiating plant (without considering the factors including natural evaporation and permeation into the soil). This cannot only mitigate the water shortage in a beneficiating plant but also help improve the environmental protection and safety. In 2011, Sinosteel Chifeng Jinxin Mining Co., Ltd. used pumps to recycle water in tailing pond, saving water resources and protecting environment. In order to further raise the recycling rate and reduce the discharge of tailing water, the company changed the water pipelines to replace recycling pump with gravity flow, enabling 24-hour uninterrupted flow of recycling water up to 1.314 million cubic meters, reclaiming extra 224,000 cubic meter of water each year and thus reducing the need for fresh water. This led to the saving of direct cost by over RMB 700,000 including those for pump power, water resources and spare materials. In addition, the stable recycling water in the tailing pond also helped reduce the occurrence of low recycling rate due to the complicated operation of diaphragm pump, recycling pump, ore grinding and floatation, thus creating more economic benefits.



中钢赤峰矿业尾矿库周边风景如画  
The picturesque scene nearby the tailing pond of Sinosteel Chifeng Jinxin Mining Co., Ltd.

### 案例 CASE

中钢山东矿业在节流上下狠功夫  
Sinosteel Shandong Mining makes great efforts to reduce expenditure



中钢山东矿业公司选矿厂通过提高技术水平节能降耗  
Sinosteel Shandong Mining Beneficiating Plant save energy and reduce consumption by upgrading technology

2011 年，中钢山东矿业实现利润 13 亿元，公司能够取得良好的经济效益，一方面是抢抓市场机遇，增产增效；一方面是在“节”字上做文章，狠抓内部挖潜，降本增效。公司总经理陈国利说，提高经济效益，既要开源，更要在节约成本上下功夫，市场不好、价格下滑时尤其如此。抓好节能降耗、降本增效，要在这样几点上下功夫。一是要在技术进步下功夫。2011 年公司对中细碎更换及工艺改造成效显著，筛分效率大幅提高，破碎系统生产能力由每小时 272 吨提高到 400 吨，球磨机处理量提高 5%，而设备装机总功率由 1200kW 降为 945kW，节能降耗成效显著。二是要深入开展对标挖潜，加强目标的分解、落实和

考核。公司的成本费用核算、考核已经细化至班组，材料、备件等生产物资的消耗已经具体到每台机器设备，指标落实到人，通过严格考核，促进了成本指标的明显优化。2011 年同上年相比，钢球单耗由每吨 0.42 公斤降到 0.38 公斤，选矿电耗由每吨 2207 度降为 1893 度，衬板由每吨 0.25 公斤降为 0.2 公斤，新水单耗由 28 立方米降到 23 立方米，这几项合计降低成本达 475 万元。三是要树立过紧日子的思想，严格控制管理费用的支出，杜绝跑冒滴漏。作为矿业公司成本管理试点单位，公司通过完善内控制度，加强成本费用管理，工艺优化等措施，吨矿成本降低近 20 元，对公司经济效益的提高发挥了重要作用。





## 优化尾矿处理工艺，珍惜有限，创造无限

We value the limited resources and we create unlimited opportunity by optimizing tailing treatment processes



中钢马矿院 - 粗粒预选抛尾及尾矿回收生产线  
Sinosteel Ma'anshan Institute of Mining Research Co., Ltd. - Production Line of Pre-concentration, Discarding the tailing and Tailing Recovery

In 2011, Sinosteel Shandong Mining Co., Ltd. realized substantial profits of RMB 130 million. The reason why they could do so well is that, on the one hand, they seized the market opportunities to increase production and efficiency; on the other hand, they tapped the potential to reduce cost and increase efficiency. As the General Manager, Chen Guoli said, to raise economic effect needs not only increase income but also reduce expenditure, especially when the market is downturn and price is dropping. In order to save energy, reduce consumption and cost and improve efficiency, we focus on the following points. One is to make great efforts to upgrade technology. In 2011, the company received remarkable results in upgrading technology, which increased screening efficiency. The crushing capacity was increased from 272 tons to 400 tons per hour; ball grinder's handling capacity was increased 5%, and installed power was reduced from 1200 kW to 945 kW. The second is to benchmark and tap the potential, and to emphasize the target breakdown,

implementation and assessment. The calculation and evaluation of cost in the company was subdivided to each team, and the consumption of raw materials was subdivided to each machine and even individuals. The strict evaluation contributed to the optimization of cost indexes. Compared to 2011, steel ball consumption was reduced from 0.43 kg/ton to 0.38 kg/ton; electricity consumption for beneficiating was reduced from 22.07 KWH/ton to 18.93 KWH/ton, lining plate from 0.25 kg/ton to 0.2 kg/ton, and fresh water from 2.8 cubic meters to 2.3 cubic meters. All these combined reduced cost up to 4.75 million Yuan. Thirdly, we need be prepared to lead a thrifty life by controlling various administration expenditures and eliminating waste. As a trial unit for cost management, by taking measures such as improving its internal control system, intensifying cost management and optimizing processes, the company reduced the cost per ton of ore by RMB 20, increasing the economic benefit considerably.



中钢山东矿业公司厂区  
A View of Factory of Sinosteel Shandong Mining Co. Ltd.

国家知识产权局授予中钢马矿院两项发明——“铁矿尾矿整体利用和处置工艺”和“低品位磁铁矿石的预选方法”发明专利。这是马矿院在尾矿资源综合利用和低品位铁矿石选矿领域取得的两项重大技术突破。

“铁矿尾矿整体利用和处置工艺”发明采用“旋流器+细筛”的组合分级工艺，减少了后续尾矿处理工艺的尾矿量 and 处理费用，实现尾矿资源的大宗量综合利用，产生了较好的经济效益。

“低品位磁铁矿石的预选方法”发明实现了“多碎少磨、节能降耗”的选矿理念，解决了极贫磁铁矿加工成本高、尾矿量大的难题，是极贫铁矿石选矿技术的重大突破之一。

目前，“低品位磁铁矿石的预选方法”发明已在马钢凹山选厂应用，实现年增加产量 20% 以上，年创经济效益 1.1 亿元以上，节电 2000 万 kW·h/a 左右，向尾矿库中排放的尾矿量减少 130 万 t/a 左右，节能减排效果显著。项目实施后，由于入选边界品位由原来的 18% 降低到 15%，可扩大资源量约 2000 万吨。

The State Intellectual Property Office granted to Sinosteel Ma'anshan Institute of Mining Research Co., Ltd. two invention patents, i.e., “iron ore tailing utilization and treatment process” and “pre-concentration method of low grade magnetite”, which represented the two major technology breakthrough in utilization of tailing resources and pre-concentration of low grade ore.

By combining hydro cyclone with fine sieving, the invention of “iron ore tailing utilization and treatment process” reduces the tailing amount to be treated and the treatment cost, realizes the comprehensive use of tailing resources and receives good economic benefits.

The invention of “pre-concentration method of low grade magnetite” realizes the beneficiating concept of “crushing more and grinding less to save energy and reduce consumption, solving the problem of high processing cost and large amount of tailings of extremely low grade magnetite ore, being one of major breakthroughs in iron ore beneficiating.

By now, the invention of “pre-concentration method of low grade magnetite” has been applied in one beneficiating plant of Ma'anshan Steel. This helped increase their production by over 20%, generating economic benefit of more than RMB 110 million, saving electricity about 20 million KWH/a, reducing the amount of discharged tailings by 1.30 million t/a, thus having tangible results in energy saving and emission reduction. In addition, the ore below cut-off grade was reduced from 18% to 15%, thus increasing resources about by 20 million tons.

# 3

## 和谐共赢链 Harmonious Win-Win Chain

中钢集团的发展离不开社会各方面的支持与合作。和谐才能营造良好的发展空间，和谐才能创造更多的财富价值，和谐才能实现多方的共赢格局。

中钢集团努力建立和谐的员工关系，为员工提供广阔的发展空间；努力创建和谐的社区关系，积极投身公益事业，为企业的可持续发展创造优质的外部环境；努力坚持和谐发展的企业品格，与各利益相关方一起打造和谐供应链。

Sinosteel Group cannot develop without the support and cooperation from all walks of life. Only harmony can create a favorable development environment, generate more values and achieve win-win situation.

Sinosteel Group seeks to form harmonious relationship among employees and provide extensive development space for them; makes great efforts to forge a harmonious relation with the community where we operate and participate in social public welfare, building a favorable external environment for sustainable development; sticks to harmonious development and forms a harmonious supply chain with stakeholders.







## 和谐员工关系

### Harmonious Employee Relationship

员工是中钢集团最宝贵的财富。中钢集团坚持以人为本，努力构建和谐的员工关系，以集团发展带动员工发展，实现员工与企业共同成长。

Employees are the most valuable wealth of Sinosteel Corporation. We always put people first and seek to build harmonious employee relationship and drive employee growth with the growth of the Group, achieving common growth of employees and enterprises.

### 员工概况

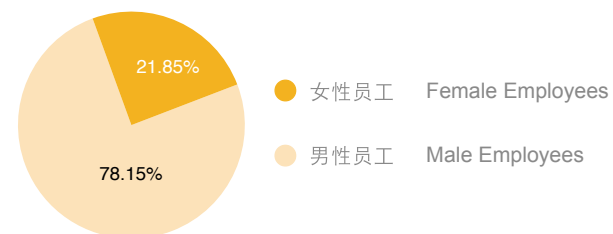
#### Staff Overview

截至 2011 年底，中钢集团员工总数为 46671，员工队伍年轻而富有活力。集团的所有员工都依法签订了劳动合同，员工的社会保险覆盖率也达到 100%。其中，45 岁以下员工占 64.1%，女性管理者比例为 6.53%。

As of the end of 2011, Sinosteel employed a total of 46,671 persons. They are young and vigorous, all employees have signed labor contracts in accordance with laws and their social security coverage reaches 100%. Among them, employees below 45 account for 64.1%, and women account for 6.53% in the management.

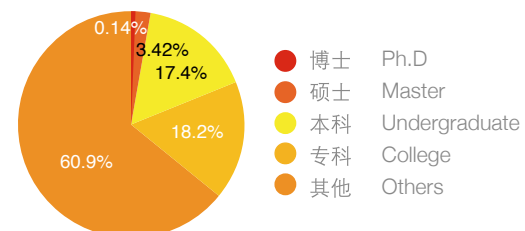
#### 2011 年集团员工性别比例（不含海外机构）

Sinosteel Group's Employee Gender Ratio in 2011 (excluding overseas organizations)



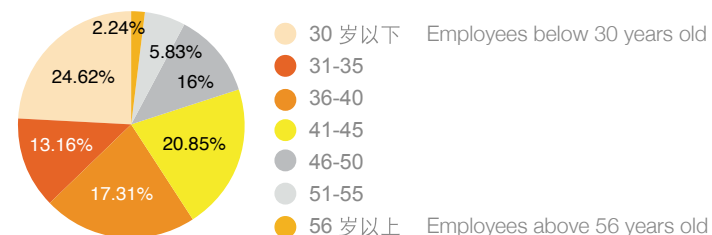
#### 2011 年在职员工学历结构（不含海外机构）

Sinosteel Group's Education Background Structure in 2011 (excluding overseas organizations)



#### 2011 年集团在职员工年龄结构（不含海外机构）

Sinosteel Group's Employee Age Structure in 2011 (excluding overseas organizations)



### 尊重员工权益

#### Respect Rights and Interests of Employees

中钢集团坚持尊重和保障员工的各项合法权益。严格遵守各国有关劳工的法律法规和政策规定，奉行平等、非歧视的用工政策；认真执行与工会签订的集体谈判协议；严格执行国家工时制度和休假制度，鼓励带薪休假；保证员工对工作中可能出现的安全健康隐患有知情权，并制定了一系列政策和流程，确保职业安全健康。

中钢集团设立了各级工会组织，目前集团在京员工全部加入了工会。建立了职代会制度，保障员工民主权利。听取并及时反馈员工意见或建议，在制定涉及职工切身利益的相关政策过程中，均由工会组织召开职工代表、基层工会负责人和部门负责人座谈会，广泛听取员工意见。

Sinosteel Corporation has always respected and guaranteed the lawful rights and interests of employees. We abide by the laws and regulations on labor in the countries where we operate, pursue equal and non-discriminatory employment policy; implement the collective bargaining agreement signed with Labor Union; follow the national rules on working hours and holidays and encourage paid leave; make sure that employees are informed of potential hazards of health and security,



员工积极履行权益，投票选举人大代表  
Employees exercise their rights to vote deputies of People's Congress.

and formulate series of policies and procedures to ensure occupational health and security.

Sinosteel Corporation has established labor unions at different levels, with all Beijing employees joining in the labor union. We have employees' congress system to guarantee their democratic rights. We solicit the complaints or suggestions from the employees and timely feed them back; when laying down policies relevant with interests and rights of employees, the labor union will hold a symposium attended by employee representatives, heads of grass-roots labor unions and departments to solicit the opinions of employees.



中钢集团第一届三次职工代表大会  
The Third Session of the First Employees' Congress of Sinosteel Corporation





## 提高员工满意度 Health Records

中钢集团重视和谐企业建设，通过定期开展员工满意度测评，改善团队合作关系，提高员工对企业的归属感、责任感。中钢集团员工满意度高，员工流失率为 1.5%。

Sinosteel Corporation pays attention to the construction of a harmonious enterprise, and improves teamwork as well as the employees' senses of belonging and responsibility by regular employee satisfaction evaluation. Sinosteel employees have high degree of satisfaction, with the employee turnover rate of 1.5%.

## 带薪休假制度 Paid Leave System

中钢集团关注员工的身心健康，为员工提供带薪休假。集团人力资源部制定了相应的带薪休假制度。海外机构根据当地法律要求和自身实际情况也制定了带薪休假制度。

Sinosteel Corporation cares for the health of the employees and offers paid leave, with Human Resources Dept. setting down the relevant paid leave system. Our overseas divisions have also done the same in accordance with local conditions and laws & regulations.

## 平等雇佣制度 Equal Employment System

中钢严格遵守所在国当地的劳动法律，保障员工享有平等就业、选择职业及取得劳动报酬的权利。我们奉行联合国全球契约“劳工标准”中的相关原则，制定平等、非歧视的劳动用工政策，在招聘及用人过程中坚持“公平、平等、竞争、择优”的原则，不因为员工的种族、年龄、性别、婚姻状况、怀孕情况、家庭责任、肤色、性取向、残疾、道德、信仰、宗教、国籍、人种或社会出身、政治观点、文化背景、语言或出生等因素产生歧视性行为。

Sinosteel is strictly in compliance with the labor laws of the countries where it operates, and guarantees the rights of employees for equal employment and obtaining payment. We abide by the relevant principles of "labor standards" set forth in United Nations Global Compact, and formulate equal and non-discriminatory employment policy. When recruiting new workforces, we stick to the principle of "being impartial, equal, competitive and merit-based", without any discrimination due to a candidate's race, age, sex, marital status, pregnancy, family role, skin color, sex orientation, disability, moral, belief, religion, nationality, social origin, political view, cultural background, language, birth and other factors.

## 健康档案 Health Records

中钢集团定期安排员工体检，以便更好地跟踪员工的健康状况。目前集团总部体检覆盖率已经达到 100%，并且为总部所有员工建立了健康档案。驻外机构也都逐渐建立起各自的健康档案制度。

Sinosteel Corporation arranges regular physical examinations for employees to follow their health situation. Now all employees at the headquarters take physical examination and have their health records. Overseas divisions are also gradually creating employees' health record system.

## 帮助员工发展 Help Staff Development

中钢建立了“人尽其才，才尽其用”的员工培养、选拔、使用机制，加强员工职业技能和专业素质的培训，拓宽员工职业成长的通道，积极营造开放、互信的企业文化，促进员工的健康发展。

Sinosteel has set up the system of "making the most of staff; making the most of talents" for training, selecting and using to strengthen the professional skills and professional quality, widen the career growth channel, build up open and mutual trusted enterprise culture and promote the healthy development of the employees.

## 员工培训 Staff training

中钢高度重视员工培训，坚持制定年度培训计划，加大员工培训投入，科学安排员工培训内容，强调培训对解决员工实际问题的指导作用，提高员工培训的针对性和有效性，最大限度地发挥员工培训的效用与效果。

Sinosteel pays great attention to staff training, consists on setting up the annual training plans, increases expense on staff training, arranges the content of staff training scientifically, emphasis on the guiding role of training in solving the practical problems of employees, improves the purposefulness and effectiveness of staff training and maximizes the usefulness and effectiveness of staff training.

### 案例 CASE

#### 中钢贸易有限公司举办管理培训班 Sinosteel Trading Co., Ltd. opening the management training class

2011 年 7 月 10 日，中钢贸易有限公司邀请北京大学光华管理学院的老师举办了一场“中钢贸易管理培训班”活动。培训由美国密苏里大学营销学邹绍明教授讲授如何用全球营销战略取得成功。邹教授以宏基公司 Aspire 品牌的营销策略为例，对多国营销与全球营销进行了比较，分析了不同的营销策略适用于哪种产品架构，介绍了全球化企业的优势以及如何实现企业全球化的优势。根据贸易公司的实际需求，邹教授还向大家讲授了如何应对跨文化谈判中的挑战，如何在市场营销中进行市场细分、市场定位，介绍了物流管理系统的成本控制、发展顾客关系、营销关系层次设计和应对价格战的方法。

此外，培训还邀请光华管理学院组织管理系的王辉教授讲授高效团队的建设与管理。王教授用幽默的

教学语言、生动的案例分析、音频和视频等多种教学手段，讲授了如何选人、用人、激励人，如何理解团队、认识团队、管理团队、激励团队，最后成为一个好的团队领导者。



商务谈判培训  
Training of Business negotiations



Sinosteel Trading Co., Ltd. invited teachers of Brilliance Management Institute of Beijing University to hold the activity "Training Class on Management Trade of Sinosteel" on July 10, 2011. The training was conducted by the Professor Zou Shaoming on marketing at University of Missouri in America teaching them how to use the global marketing strategies to achieve successes. Professor Zou took the marketing strategy of Acer Company's Aspire brand as an example, compared multinational marketing with global marketing, analyzed what kind of product configuration was applicable to the different marketing strategies and introduced advantages of global marking and the way to realize the advantages of global enterprise. According to the actual needs of the Treading Company, professor Zou also taught them how to deal with challenges in cross-cultural

negotiations, how to do market segmentation and market positioning in marketing and introduced cost control of logistics management system, development of customer relationship, hierarchical design of marketing relationships and methods of dealing with price war.

Besides, the training also invited Professor Wang Hui from the Organization and Management Department of the Brilliance Management Institute to teach them the building and management of highly-effective team. Professor Wang taught them how to select, use and encourage staff and how to understand, realize, manage, encourage team, after which they can become a great team leader by teaching methodology such as humorous language of teaching, vivid case analysis, audio and video.

## 职业成长 Career Growth

中钢重视帮助员工制定职业成长发展目标，建立职业发展顾问制度，为员工职业发展路径提出建议，定期对员工表现进行考察，根据考察结果，完善员工的职业发展规划，保证员工的个人发展与公司的成长同步。

中钢集团的全球分支机构都坚持人才为先的战略，高度重视建立健全海外员工的培训和学习体系。中钢集团在非洲的三家生产型企业的全部正式员工都接受过系统培训，并持有专业机构颁发的职业资格证书。

Sinosteel attaches great importance to helping staff develop the goals of career, establishes the consultant system of professional development, puts forward suggestions for the channels of staff's career development, inspects the performance of staff on a regular basis and improves staff's career plans based on the investigation results, which ensure the synchronous development of staff and the Group.

Sinosteel's global branches adhere to the talents-first strategy and attach great importance to establishing and improving training as well as learning systems for overseas staff. All full-time staff of the three production enterprises of Sinosteel in Africa have received systematic trainings and have occupational qualification certificates issued by professional organizations.

## 案例 CASE

### 中钢广东地区公司举办拓展训练活动 Expend training activity held by Sinosteel companies in Guangdong

中钢广东地区公司（中钢集团广东有限公司、中钢钢铁有限公司广州分公司、中钢国际货运广东有限责任公司）在佛山三水侨鑫生态园举办户外拓展训练营。

拓展训练从组建团队，起队名、队徽、口号、队歌开始，共完成了五个项目：鼓舞飞扬、沙场点兵、高空断桥、极速时限、毕业墙。针对团队协作、沟通执行、突破激励、思维突破、责任归属进行了训练。

此次拓展训练活动，使全体员工开阔了视野，增长了知识，磨练了意志，培养了团结协作的意识。

Sinosteel companies in Guangdong (Sinosteel Guangdong Co., Ltd., Guangzhou Branch of Sinosteel Iron & Steel Co., Ltd.. and Sinosteel Shipping & Forwarding (Guangdong) Co., Ltd.) held the outdoor expend training activity in Foshan Sanshui Kingold Ecological Park.

Starting from establishment of team, naming the team, team logo, slogan and team song, the expend training has completed five items: Flying with drums, battlefield soldiers, broken bridge in high altitude, extreme speed in limited time and graduated wall. Those activities trained specific to team cooperation, communication and implementation, breakthrough inspiration, though breakthrough and attribution of responsibilities.

This expend training activity broadened the horizons of all employees, increased their knowledge, strengthened their will power and cultivated their sense of unity and cooperation.



中钢广东地区企业间通过活动进一步增强了团队凝聚力  
Team cohesion among Sinosteel companies in Guangdong has been enhanced further through these activities





## 案例 CASE

中钢西重巧用激励艺术，增强班组动力  
Sinosteel Xi'an Heavy Machinery Co., Ltd. strengthened the drive force and passion of team with artful incentive



中钢西重金属结构分厂班组嘉许仪式  
Award ceremony in the team of metal structure branch of Sinosteel Xi'an Heavy Machinery Co., Ltd.

在中钢西重金属结构分厂的班组大家庭中，每位班组成员已将自身融入到团体之中，他们相互鼓励、相互学习，在“比、学、赶、帮、超”的氛围中，分享绝活，交流经验，共同成长。在班组管理中，灵活运用“五只手”：拍手、举手、握手、牵手、动手，让员工懂得互相欣赏与鼓励。班组成员中有人做出了成绩或获得了荣誉，班组会利用班前会或学习会对他们进行激励和嘉许仪式，大大激发了员工潜能和工作

激情。2011年，结构分厂班组根据实际情况，除评选“每周一星”外，还逐月评选“轮值安全员”、“轮值管理员”、“轮值监督员”、“轮值宣传员”等，班组成员为团队效力的意识不断增强。

In the big family of the team of metal structure branch of Sinosteel Xi'an Heavy Machinery Co., Ltd., each member has blended themselves into the team, they encouraged each other and learnt from each other, and shared unique skills, exchanged experience and grew up together in the atmosphere of “comparison, learning, catching, helping and overtaking”. In addition, they used flexibly the “five hands” in the management of team: Clapping hands, raising hands, shaking hands, hand in hand and operating with hands, to make the employee appreciate and encourage each other. If someone made achievements or gained honor in the team, the team will inspire or hold awarding ceremony for them in the meeting before work or learning workshop, which greatly inspired the employee's potential and work passion. In 2011, in addition to selecting the “Star of each week”, based on the actual conditions, structural branch team also selected “Safety guard on duty”, “Controller on duty”, “Supervisor on duty”, “Announcer on duty”, etc. on a monthly basis, as a result, the sense of team efficiency of the members in the team increased continuously.



中钢石家庄设计院组织团员青年赴卢沟桥参观学习，接受红色教育。  
Sinosteel Shijiazhuang Design Institute organized the young league member to go to Lugou Bridge for a visit and learning & receiving education of communism.

In the development of Sinosteel, the proportion of youth increased yearly, so construction of young talent team is the most important of all. In the daily working and living, the Group pays attention to the development of youth to help most youth league member in Sinosteel positively practice, gain comprehensive exercises, improve professional levels and try best to realize self-worth in the blue print of development of the Group.

In 2011, on the occasion of Youth Day, the Youth League Committee in Sinosteel greeted the majority of youth in Sinosteel and appealed most young member to continue new behavior of “Youth Day” spirit for new era, which were setting lofty idea, encouraging quality, and working hard and improving skills. Companies owned by Sinosteel have developed various activities to celebrate the feast and inspire the employees to grow vigorously.

## 关爱青工成长

Care about development of young employees

在中钢事业发展中，青年人所占比例逐年增加，青年人才队伍建设尤为重要。在日常工作生活中，公司高度重视青年发展，帮助中钢广大团员青年在企业的发展蓝图中，积极投身实践，获得全面锻炼，不断提高业务水平，努力实现自我价值。

2011年“五四”青年节之际，中钢集团团委发出倡议书，向中钢广大团员青年致以节日的诚挚问候，并号召广大青年在新时期续写“五四”精神新品行，志存高远，砥砺品质，努力学习，提高技能。中钢所属企业通过开展形式多样的活动，欢庆节日，激励员工蓬勃发展。



中钢广铁举办“庆五四”青工朗诵比赛，展现了青年人敬业爱企、积极向上的精神风貌  
Sinosteel Guangxi Ferroalloy Co., Ltd. Held Recital Contest Among Youth to Celebrate Chinese Youth Day, Which Manifested Their Dedicated and Positive Spiritual Status.



中钢衡重组织青工排演舞蹈《跨越》，并获衡阳市文艺汇演一等奖  
Young Labors of Sinosteel Hengyang Machinery Co., Ltd. Rehearsed the Dance named Leap, Winning the First Prize at Hengyang Municipal Art Performance.



中钢川炭举办“庆五一、迎五四”登山运动会  
Sinosteel Sichuan Carbon Co., Ltd. Held Mountaineering to Celebrate Labor Day and Chinese Youth Day





## 重视职业安全健康

Place great importance to occupational safety health

中钢集团作为全球企业郑重承诺重视健康管理，弘扬“以人为本、健康至上”的理念，坚持“预防为主，持续改进”的工作方针，致力于为员工创造健康的工作环境和条件，加强员工职业健康监护，追求职业病零发生率的目标。

公司不断健全职业安全健康管理体系，制定并落实各项安全健康制度与措施，规范劳动安全防护用品管理；每年安排员工进行全面的身体检查，建立职业健康档案；举办各种文体活动，营造愉悦的工作环境，关注员工的心理健康。

As a global enterprise, SinoSteel promises seriously to pay attention to the healthy management, promote the concept of "People first and health first" and adhere to the working plan of "Prevention first and continuous improvement", be commit to creating healthy working environment and conditions for employees, enhance custody on employees' occupational health and pursue zero occurrence of occupational diseases.

The Corporation persistently improves its occupational safety and health management system, formulates and implements a variety of safety and health systems and measures and normalizes management of safety protective articles. It arranges comprehensive physical examination for employees every year and keeps occupational health archives; moreover, it holds various recreational and sports activities to create a pleasant working environment and watches the mental health of employees.

### 职业安全健康管理制度

Management system on occupational safety and health

中钢严格遵守所在地区政府，行业有关职业健康的法规和政策，结合企业内部情况，制定职业健康管理制，预防措施及安全操作规程，并建立健全了相应的组织领导机构。

为了加强职业健康安全风险控制，公司建立了职业健康安全风险评估机制，并按照一定的程序，定期对公司的健康安全风险进行评估。

SinoSteel strictly adheres to relevant laws & regulations and policies on occupational health provided by local governments; by combining the internal conditions of the Group, it formulates management system for occupational health, prevention measures and safety operation regulations, and establishes and improves corresponding leadership organization.

To strengthen the risk control over the occupational health and safety, the Group has established risk evaluation mechanism for occupational health & safety and followed some certain procedures to carry out evaluation for health and safety risk.

### 职业安全健康管理培训

Training on management of occupational safety and health

中钢按照相关制度的要求，积极探索实施各种相关安全健康管理措施，为员工提供安全健康保障。

中钢将安全培训作为安全管理和安全文化建设的重要内容。加大投入力度，采取多种形式，提升员工安全意识和安全操作水平。

According to the relevant system requirements, SinoSteel actively probes and implements various management measures of safety and health to provide safe and healthy environment for its staff.

SinoSteel regards safety training as an important part of the safety management and safety culture construction, strengthen its investment, and applies all methods to improve the safety awareness and safety operation level of the staff.

### 案例 CASE

#### 中钢集团上海有限公司举办白领健康管理讲座

SinoSteel Shanghai Co., Ltd. held a lecture on white-collar health management

2011年9月16日，中钢集团上海有限公司邀请复旦大学附属上海市第五人民医院主任护师、复旦大学副教授、硕士生导师杨青敏医生为全体员工作了题为“与健康有约”的白领健康管理知识讲座，介绍了健康保健、疾病预防和心理调节等方面的知识。

本次健康讲座是公司2011年度员工培训计划之一。杨老师从心理健康、饮食健康、运动健康、养生健康四个部分依次为员工讲解了健康管理的相关知识，并结合丰富的临床经验，为大家带来了一场生动有趣、受益匪浅的培训课程。此次讲座丰富了员工的健康知识，增强了健康管理意识，提高了员工心理调节能力，对维护和提升员工个人健康素质，提高整体工作效率，促进公司健康发展起到了积极作用。

On September 16, 2011, SinoSteel Shanghai Co., Ltd. invited doctor Yang Qingmin, director nurse from Shanghai No. 5 People's Hospital of Fudan University, associate professor and master tutor in Fudan University, to give a lecture on white-collar health management "An Appointment with Health". Doctor Yang introduced the knowledge of health care, disease prevention, psychology adjustment and others.

This health lecture was one of the 2011 training plans for company staff. Through combing rich clinical experience, Teacher Yang gave an interesting and beneficial lecture by introducing relevant knowledge of health management from four aspects, namely, psychology health, diet health, exercise health and nutrition health. Though the lecture, staff enriched the health knowledge, strengthened their awareness of health management and improved their abilities of psychology adjustment. This lecture has improved the staff' health quality and their working efficiency, which had an active effect on the health development of the company.



现场互动  
Communication in the lecture



## 案例 CASE

中钢刘塘坊矿业举办特种作业人员培训  
Sinosteel Anhui Liutangfang Mining Co., Ltd. held the training for special operators

2011年12月4日，中钢刘塘坊矿业人力资源部根据公司特种作业培训计划的要求，组织六安市黎明职业技能培训中心的五位资深教师对公司及各施工单位的电工、电焊工、天车工、尾矿库工、装载机司机、卷扬工、爆破工等七个特种作业工种的108名员工进行了为期5天的安全技能培训，并于12月8日进行了取证考试。

本次培训是根据公司《安全教育培训管理办法》规定，为进一步提高特种作业人员的操作技能和安全意识，结合生产经营特点而组织进行的。通过本次培训，使得从业人员在安全技术素质和专业操作技能上取得了进一步提高，增强了特种作业人员对突发事件的预防和处理能力，为今后预防、减少特种设备事故发生奠定了坚实基础。

On December 12, 2011, according to the requirements of training plan for special operation, the Human Resource Dept. of Sinosteel Anhui Liutangfang Mining Co., Ltd. organized five teachers with rich experience from Liuan Liming Vocational Training Center to carry out a 5-days safety skill training for the 108 electricians, electric welders, crane men, workers of tailings pond, drivers of loader, winch operators, blasters from the company and all construction units. Participators took the examination for certification on December 8.

In accordance with the provision of "Management Methods for Safety Education Training", this training was organized to further improve the operational skills and safety awareness of the special operators by combing the features of production and management. Through this training, the operators have improved their safety technology quality & professional operation skills and strengthened their abilities to prevent and deal with the unexpected incidents, which laid a solid foundation for reducing the special device incidents.



特种作业人员操作技能培训  
Training on operation skills for special operators

## 案例 CASE

中钢耐火公司举办“职业病防治”知识培训  
Sinosteel Refractory Co., Ltd. offered knowledge training on "Occupation Disease Prevention"

中钢耐火公司举办了“职业病防治”知识培训，涉及有害作业岗位的单位领导、工段长、班组长以及部分岗位职工到现场参与了培训。

此次培训是按照公司《百日安全生产无事故活动》方案中“职防宣传月”的要求，特别邀请了洛耐医院职业病防治专家进行授课。专家结合公司职业病特点，专门对尘肺病的发病原因、治疗办法以及病理特征，到如何防治，全面进行了讲解。通过图文并茂的讲解，使公司职工深入了解了职业病的成因和如何做好自我保护，达到防止职业病发生的目的。

Sinosteel Refractory Co., Ltd. offered knowledge training on "Occupation Disease Prevention". Unit leaders, section leaders, team leaders and part of staff related to harmful operation came to participate in the training.

In accordance with the requirements of "Propaganda Month for Occupational Disease Prevention" in the scheme "100 days of safe production without accidents", this training specially invited the experts of occupational disease prevention from Luonai Hospital to give lessons. Combining the features of occupation disease in the company, the experts explained comprehensively about the cause, treatment and pathological characteristics of the pneumoconiosis as well as the way of prevention and cure. Trough the excellent explanation, the staff can deeply understand the cause of occupational disease and the way of self protection to reach the aim of preventing occupational diseases.



专家现场讲授健康知识  
Expert gives speeches about the health knowledge



## 坚持员工本地化

Adhere to staff localization

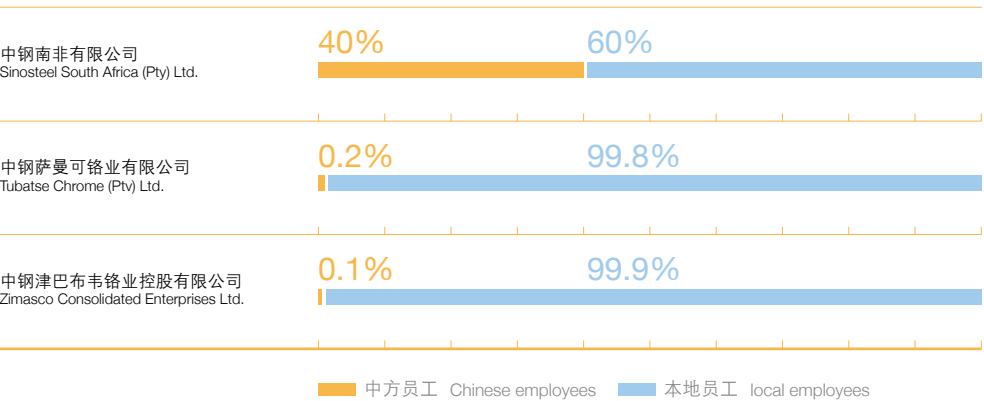
中钢始终重视实施人才本地化战略，积极从当地员工中培养出一批优秀的管理人才，经过几年的努力，中钢集团全球分支机构的管理层均基本实现了本地化。

中钢集团在非企业积极融入当地文化，培养本地化管理人才，制定并实施了一系列针对本地员工招聘和任用的制度。在非的三个生产型企业中，除少数外派的中方管理人员外，绝大多数员工都来自当地，2011年，在非洲地区下属公司的本地员工数量已占到员工总数的99%以上。通过大量聘用当地员工，提供健康安全的工作条件和广阔的职业发展空间，中钢集团使当地社区、居民切实分享到了企业发展的丰硕成果。

Sinosteel has always attached importance to the implementation of talent localization strategy and actively cultivated a batch of excellent management talents from local staff. After years of efforts, the management of global branches of Sinosteel Group have basically realized the localization.

Sinosteel companies in Africa actively integrate with local culture. They foster localized management talents and establish and implement a series of recruitment and appointment system specific to local employees. In the three production companies in Africa, except several assigned Chinese management personnel, the majority of employees are local people. By 2011, the quantity of local employees in subsidiaries in Africa has accounted for more than 99% of the total quantity. By largely recruiting local employees and providing healthy and safe working condition and extensive career opportunities, Sinosteel shares achievements made in company development with local communities and residents.

截至 2011 年底，中钢集团在非公司中方与本地员工数量对比图  
As of the end of 2011, comparison diagram of Chinese employees and local employees in African companies of Sinosteel Group



## 开展员工关爱

Concern and Love Staff

中钢集团不断推进企业文化建设，注重增进员工的身心健康、通过组织各种积极向上的文体活动，提高凝聚力，培养团队精神、丰富员工生活，促进员工素质的全面提升。

### 案例 CASE

#### 中钢举办第七届“中钢杯”登山比赛 Sinosteel launched 7th "Sinosteel Cup" Mountaineering Competition

登山比赛是中钢集团一项传统的群众性体育活 动，至今已连续举办了七届，2011 年 4 月 15 日，一年一度的登山比赛又在香山拉开了帷幕。本届比赛按年龄分为男、女甲组和男、女乙组，与往年稍有不同，乙组年龄范围改至 45 周岁以上。

经过激烈的角逐，最终中钢贸易袁凡、中钢设备周丽楠(女)、综合管理部李存祥、中钢设备张一斌(女)分别获得男、女甲组和男、女乙组第一名，最佳个人成绩为 20 分钟；中钢设备蝉联团体七连冠，中钢贸易获得团体亚军，中钢物业首次闯入前三，获得团体第三名。

本届登山比赛参加人数再创新高，有近千名员工报名，700 余名员工参加，活动取得圆满成功。

Mountaineering competition is a traditional public sports for Sinosteel. It has been held for seven times. On April 15, 2011, the competition was launched at the Fragrant Hill. In the competition, participators were divided into man and women Team A and man and women Team B. Age range of Team B has changed to be over 45 years, which differed from the former years.

After the competition, Yuan Fan of Sinosteel Trading Co., Ltd., Zhou Linan of Sinosteel Equipment & Engineering Co., Ltd., Li Cunxiang of Comprehensive Management Department and Zhang Yihong of Sinosteel Equipment & Engineering Co., Ltd. respectively won No.1 for men & women Team A and men & women Team B with the best person grade of 20 minutes. Sinosteel Equipment & Engineering Co., Ltd. won the seven champions for the team; Sinosteel Trading Co., Ltd.was the second; Sinosteel Real Estate Co., Ltd. was the third for the first time.

The participants were more than the former years with near one thousand staff signing up and more than 700 staff participating. This completion ended successfully.







## 和谐社区关系

### Harmonious community relation

在全球化运营中，中钢集团注重与当地建立和谐社区关系，为企业的可持续发展营造良好的外部环境；关注社区需求，了解社区困难，致力于促进社区发展；热心公益事业，开展慈善捐赠，树立负责任的企业形象。

In the course of global operation, Sinosteel pays attention to building a harmonious relation with local community and create a good external environment for the sustainable development of the enterprise. Sinosteel also pays attention to the needs of the community and gets to know its difficulties to enhance the development of the community. Sinosteel devotes to the public welfare career and carries out charitable donations to build a "responsibility" image for the Group.

## 社区共建，构建和谐企地关系

Establishing a harmonious relationship between enterprise and local people with the joint efforts of the communities



2011年3月4日，中钢广铁公司团委组织团员青年开展学雷锋活动，为社区职工群众提供便民服务。活动设置的项目有修理家电和自行车、理发、医疗服务等。中钢广铁在每年的雷锋纪念日前夕举办团员青年学雷锋活动已形成优良传统。

Youth League Committee of Sinosteel Guangxi Ferroalloy Co., Ltd. organized League members to carry out Learning from Lei Feng activities to provide handy service for the employees in communities on March 4, 2011. The activities include electric appliance and bicycle repair, haircut, medical service, etc. It has been a good tradition for Sinosteel Guangxi Ferroalloy Co., Ltd. to hold these activities before every Learn from Lei Feng Day.



2011年3月8日，中钢辽宁公司工会组织全体女员工18人，到大连市工人养老院开展了“情暖初春 与爱同行”主题活动，看望慰问养老院的老人。女员工和老人们一起包馄饨、陪老人聊天、为老人读报纸，听他们讲述自己的经历，养老院处处洋溢着温馨融洽的气氛。

On March 8, 2011, Sinosteel Liaoning Co., Ltd organized all the 18 female employees to carry out activities under the theme of Love at Dalian Municipal Worker Nursing Home and visit the old in the nursing home. Our female employees made wontons with them, chatted with the old, read newspaper for them and listened to the heart of them. The nursing home was brimming with warmth and happiness.

Sinosteel continuously promotes the construction of enterprise culture, pays attention to the physical and psychological health of the staff, and organizes all culture and sports activities to improve cohesive power, foster the spirit of team work, enrich the staff' life and enhance the quality of the staff comprehensively.

### 案例 CASE

中钢耐火公司开通“职工思想热线”  
Sinosteel Refractory Co., Ltd. opens the "Hot Line for Staff Thoughts"

为进一步做好职工思想工作，解决职工思想问题，维护职工心理健康，促进和谐企业建设，耐火公司党委工作部开通了“职工思想热线”。

“职工热线”的宗旨是：倾听职工诉求，了解职工思想；解答职工提问，解除职工疑惑；记录疑难问题，寻求解决之道；协调相关部门，反馈解决情况；跟踪处理过程，促进问题解决；回访处理结果，力争职工满意。工作内容包括：接听受理并帮助解决职工诉求的思想、心理问题，生活、家庭问题，工作、待遇问题。

为使“职工热线”切实发挥作用，避免流于形式，党委工作部提出工作要求：对于职工提出的每个问题，做到认真倾听，热情解答；对于暂时无法解答的问题，做到积极跟进，努力协调；对于解决问题的过程做到及时反馈，主动回访，确保事事有回音，件件有落实。同时还提出了“四个不准”的自律守则：接听电话不怠慢，解答问题不敷衍，落实解决不忽悠，遵守承诺不含糊。此外还对问题的解决渠道、记录、宣传等分别提出了相应的要求。

Party Affairs Dept. of the company has opened the "Hot Line for Staff Thoughts" to further do well in guiding staff's thoughts, solve their though problems, maintain their psychological health, and promote the construction of a harmonious enterprise.

The purposes of the "staff" hotline" are: listening to the complaints from the staff and understanding the staff's thoughts; answering the questions from staff and relieving their confusion; recording confusing problems and looking for solutions; coordinating with relevant departments and giving feedback of solving conditions; following the results and fostering to solve problems; revisiting the management results and trying to meet staff's requirements. The working contents are: answering, accepting and dealing with the problems about thoughts, psychology, life, family, work and treatment of the staff.

In order to make the "staff's hotline" work practically, Party Affairs Dept. puts forward the work requirements: listen carefully to each problem raised by the staff and solve it with enthusiasm; follow up the temporary unsolved problems by coordinating; in the solving process, timely give feedbacks, carry out revisit to make sure everything has feedback and each problem has been solved. Meanwhile, the department also raises "Four NOs" voluntary code: do not slight the problem when answering the phone; do not slight over when solving the problem; do not be casual when putting the solutions in practice; do not be unambiguous when making a commitment. Besides, the department also puts forward corresponding requirements on the solving channel, record and publicity.



## 案例 CASE

**中钢衡重连续四年被评为衡阳市退役士兵安置工作先进单位**  
Sinosteel Hengyang Machinery Co., Ltd. has been awarded Hengyang advanced unit for placement of ex-service men for 4 years in a row.

2011年10月14日，在衡阳市召开的退役士兵安置工作先进单位和先进个人表彰大会暨2010年冬季退出现役士兵接收安置工作大会上，中钢衡重被评为全市“退役士兵安置工作先进单位”，这是2007年以来连续四年获得这一称号。公司人力资源部经理文新开同志也再次被授予全市“退役士兵接收安置工作先进个人”称号，受到市政府通报表彰。

几年来，中钢衡重在不断实现自身发展的同时，认真履行社会职责，积极做好退役士兵的接收安置工作，顾全大局，克服各种困难，共接收退役士兵近30名，圆满完成了市政府安排的接收安置任务，为全市经济发展、社会稳定做出了应有贡献。

在退役士兵安置工作中，公司人力资源部积极与相关单位沟通协调，根据用工需求等情况，合理地制订安置计划，每年都确保了退役士兵一次性安置上岗，并努力为他们提供更多专业技能培训，提供更多发展机会，使他们能够充分展示自己的才华。

On October 14, Sinosteel Hengyang Machinery Co., Ltd. was awarded as Hengyang “Advanced Unit for Placement of Ex-service Men” for the fourth times since 2007 in the Commendation Meeting for Advanced Unit for Placement of Ex-service Men and Advanced Individual and 2010 Ex-service Men Acceptance and Placement Meeting. Wen Xinkai, the manager of the Human Resource Dept. was again rewarded the reputation of Hengyang “Advanced Individual for Ex-service Men Acceptance and Placement” and he was commented by the government through publicity.

In recent years, when continuously realizing its own development, Sinosteel Hengyang Machinery Co., Ltd. carefully performs its social responsibilities to carry out acceptance and placement for ex-service men by overcoming difficulties. It totally has accepted nearly 30 ex-service men, fully accomplished the task appointed by the government and made its contribution to the stability of the society.

In the operation of placement for ex-service men, The Human Resource Dept. of the company has actively coordinated with relevant units and reasonably formulated placement plan according to employing demand. The company has ensured the ex-service men can get the posts for one time each year, tried to provide them with more professional skill training and more development opportunities to let them show their own talents.

## 案例 CASE

**中钢吉铁慰问桦皮厂镇“一对一”包保农户**  
Sinosteel Jilin Ferroalloy Co., Ltd extended its best wishes to “one-to-one” guarantee peasant households in Huapichang Town

2011年1月7日，中钢吉铁工会工作部受中钢吉铁领导委托，代表企业再度前往吉林市桦皮厂镇，慰问、看望因去年洪灾损失严重的“一对一”包保农户，并为他们带去了大米、面粉和豆油等生活用品。

自2010年8月12日以后，吉林市桦皮厂镇桦西村的杨甲岭和桦东村的林青山、于龙喜三户受灾村民，一直由中钢吉铁抗洪救灾“包保帮扶”工作组负责包保。从解决受灾当时的衣食住行，到以后的协调重建住房，工作组成员深入受灾村民家中，现场监督。

进入冬季以来，中钢吉铁既送烧柴，又送米、面、油等生活必需品，令受灾村民深受感动。

Commissioned by leaders, labor union work unit of Sinosteel Jilin Ferroalloy Co., Ltd. went to Huapichang Township of Jilin City on behalf of the company on January 7, 2100. They visited at one-for-one guaranteed farmer households which badly suffered from flood last year and sent rice, flour, soybean oil and other groceries to them.

Ever since August 12, 2010, three disaster-hit households, Yangjialing of Huaxi Village and Lin Qingshan and Yu Longxi of Huadong Village, Huapichang Town of Jilin, had been always under welfare of disaster relief working team from Sinosteel Jilin Ferroalloys Co., Ltd. The working team helped them in both

basic necessities of life and subsequent house rebuilding. They called at the disaster-hit villagers and made site supervision. When it entered winter, they sent firewood and many daily goods like rice, flour and cooking oil, which deeply moved the disaster hit villagers.



## 案例 CASE

**中钢集团新疆有限公司赴共建社区开展慰问贫困儿童活动**  
Sinosteel Xinjiang Co., Ltd. went to the co-construction community to launch activities for poverty-stricken children.

适逢“六一”国际儿童节，2011年6月1日上午中钢新疆党总支成员一行与乌鲁木齐天山区胜利路三屯碑社区干部来到三屯碑社区文化广场，看望并了解社区贫困儿童和孤儿的生活及学习情况，为他们送去学习用品和慰问金。少年儿童是祖国的花朵，此次前往社区的慰问活动不仅是献爱心、履行社会责任，对于公司员工也是一种良好的精神熏陶和情操的陶冶。同时也激励公司党员努力拼搏，发挥党员的先进作用，为公司创造更好的经济效益，为边疆地区少数民族生活幸福贡献一份力量。

and study condition of the poverty-stricken children and orphans, bringing them school supplies and allowance. The young is the flowers of the country. This visit not only expressed love to the children to perform social responsibility but also benefited the spirit of the staff. Meanwhile, this visit also inspired the party members to work hard and put their advance effects into practice and it created better economic benefit for the company, which devote to the happy life of the minority in border areas.



On June 1, members of General Party branch of Sinosteel Xinjiang Co., Ltd. and the cadres of Santunbei Community, which locates in Shengli Road, Tianshan District, Urumqi, went to the culture square of the community to visit and get to know the life





## 案例 CASE

中钢赤峰金鑫矿区朝阳沟移民新村竣工  
Completion of Chaoyanggou new migration village in the mining area  
of Sinosteel Chifeng Jinxin Mining Co., Ltd.

中钢赤峰金鑫矿区老朝阳沟移民新村是和谐企地关系的美好结晶。老朝阳沟村自然条件较差，加之位于中钢赤峰矿业尾矿库下游，群众的生命财产存在潜在威胁。对此，中钢矿业公司领导和中钢赤峰矿业班子，从改善当地群众生产生活条件、保护当地群众生命财产安全的角度出发，出资 800 多万元，从 2008 年开始启动老朝阳沟移民搬迁工作。2011 年 6 月，移民新村建设正式开工。新村建设实行统一规划设计，统一建房标准，统一基础设施，并将自来水、有线电视、电话等配套设施安装到户。

朝阳沟移民新村建设，是中钢赤峰矿业继投资 440 余万修建山水坡至鸡冠山 10 公里乡村公路后的又一重大举措，是公司积极承担社会责任、打造地企和谐关系的又一实践成果。

Old Chaoyanggou new migration village in the mining area of Sinosteel Chifeng Jinxin Mining Co., Ltd. is the perfect fruit of harmonious relationship between the enterprise and villages. Old Chaoyanggou village has poor natural conditions, and the village is located in the downstream of tailing pond of Sinosteel Chifeng Jinxin Mining Co., Ltd., therefore, there is a potential threat on the lives and property of the people. For these reasons, in order to improve the production and living conditions, and protect the lives and property of local people, the leadership of Sinosteel Mining Co., Ltd. and the group of Sinosteel Chifeng Jinxin Mining Co., Ltd. invested more than RMB 8 million, and since 2008, to start the resettlement in old Chaoyanggou village. In June, 2011, the construction was officially started. The new resident construction carried out unified planning design, unified housing standard and unified infrastructure, and distributed running water, CATV, telephone and other supporting facilities to all households.

Chaoyanggou new migration new village is another achievement of Sinosteel Chifeng Jinxin Mining Co., Ltd. after the construction of 10 kilometer country road between Shanshuipo to Jiguan Mountain, with an investment of more than RMB 4.4 million. It is also another practice result of the company to bear social responsibility and build a harmonious relation with local people.



朝阳沟移民新村建设新貌  
A new look of the new migration village in Chaoyanggou

## 重视教育，热心公益慈善活动 Emphasis on education and public charity activities



中钢集团作为大型国有企业，始终把发展主营业务和承担社会责任作为己任，努力服务社会、回报社会，致力于在全球开展负责任的运营。公司重视加强社区关系建设，在教育、环境、文化等多方面与社区加强合作交流，促进和谐发展，打造企业公民的良好形象。

2011 年 9 月 8 日，中西矿业组织一期矿所在地社区小学——Morowa 小学一、二年级师生共二十余人参观中西矿业一期矿现场，以作为中西矿业社区服务计划的一部分。

通过现场参观和中西矿业工作人员实地讲解，小朋友们初步了解了矿山运作方面的知识，也加深了对一期矿和中西矿业的印象。

As a large state-owned enterprise, Sinosteel always deems the development of major business and undertaking of social responsibilities as its own responsibilities, makes efforts to serve the society, return to society, and applies to develop responsible operation in the world. The Group pays attention to the construction of community relations, enhance cooperation and communication in education, environment, culture and other aspects with the community, promote harmonious development and create a good image of the Group.

On September 8, 2011, Sinosteel Midwest Corporation Ltd. organized

the over 20 students and teachers of Grade one and Grade two in Morowa Elementary School—the community school, where the first stage mine located, to visit the mine site of first stage. This visit was a part of community service planning of the company.

Through site visit and field explanation of operators, the children primarily understood the knowledge on mine operation and deepened the impression on the first-stage mine and Sinosteel Midwest Corporation Ltd.



组织社区小学生现场参观  
Organize children in community for site visit





参观“鸟巢”，孩子们露出幸福的笑容  
Visit the Bird's Nest, the children smile happily

2008年5月12日，四川汶川特大地震发生后，中钢集团踊跃捐款捐物，同时为了让灾区的孩子们早日重返校园，集团专项捐款500万元用于建设三所希望小学。为给山里的孩子创造一个近距离触摸城市文明、感受古都深厚底蕴的机会，2011年7月中旬，集团邀请这群来自于四川广元中钢希望小学的孩子，走出小村，来到北京，参加为期6天的中钢希望小学夏令营。

On May 12, 2008, after the Wenchuan earthquake, Sinosteel Group eagerly donated money and goods, and made a special donation RMB 5 million used to build three hope elementary schools in order to help the earthquake-affected children return to school. In order to create for the children an opportunity to closely touch the urban civilization and feel profoundness of ancient capital, in middle of July 2011, the Group invited the children from the Sinosteel hope elementary schools in Guangyuan, Sichuan, to go out of the small village and come to Beijing to participate in the Summer Camp of Sinosteel Hope Elementary School with a period of 6 days.



同学们登上了万里长城  
Students Climbed the Great Wall



同学们认真参观中钢展厅  
Students Visited Exhibition Hall of Sinosteel



孩子们制作了五彩缤纷的贺卡表达对中钢的感激之情  
Children Made Colorful Cards to Show Their Gratitude to Sinosteel

## 案例 CASE

中钢邢机“惠民演出”倾情奉献“邢襄大舞台”  
“People Benefiting Performance” by Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. dedicating  
“Xingxiang Stage” with great passion

2011年8月20日，河北省邢台市“邢襄大舞台”百场惠民演出中钢邢机专场隆重举行。由中钢邢机职工倾情演绎的文艺节目，在这个清凉多姿的夏末时节，为当地人民群众的幸福生活再添别样的艺术享受。

演出活动在欢畅的舞蹈《快乐崇拜》中拉开序幕，随后来自中钢邢机各单位的30余名职工相继登台，从《七里香》、《素颜》到《一起走过的日子》，从《荷塘月色》、《伤不起》到《骑上单车去拉萨》，精彩的经典曲目《月亮代表我的心》、《上海滩》、《酒醉的探戈》、《带上你的故事跟我走》、《相亲

相爱》等靓歌、热舞、小提琴伴唱，将传统与时尚充分融合、把经典和流行对撞出幸福的火花，在斑斓色彩点缀美丽邢襄夜的同时，以近2个小时的精彩演出，尽展中钢邢机人多才多艺的无限魅力和爱企业、爱家园、积极构建和谐社会的良好精神风貌。

“邢襄大舞台百场惠民演出活动”由河北省邢台市委、市政府主办，自2008年开展以来已成为当地的特色文化品牌。8月20日晚的中钢邢机专场，以独有的浓郁企业文化特色在河北省邢台市掀起了一股文化热潮，迅速成为焦点，吸引了大众目光，赢得了当地媒体、人民群众和各级领导的广泛好评。







On August 20, special performance of Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. was grandly opened, as one of the hundreds of “people benefit performances” of 2011 “Xingxiang Stage” in Xingtai, Hubei. The artistic performance played by the employees of Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. added another art sharing for the happy life of the local people in the late cool summer.

The performance activities began in the joyous dance, then more than 30 employees of each units of Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. made their performances on the stage. All the pretty songs, hot dances and violin accompaniment performed by them combined tradition and fashion, classics and popularity, and sparked with happy sparks. At the beautiful Xingxiang night dotted with gorgeous colors, nearly two hours of superb

performance fully showed the infinite the charm and good mental outlook of loving enterprise, loving homes and actively building a harmonious society of the versatile employees in Sinosteel Xingtai Machinery & Mill Roll Co., Ltd.

The above activity, hosted by Xingtai Municipal Committee and Municipal Government, Hebei Province, has become the local special cultural brand since its development in 2008. The special performance organized by Sinosteel Xingtai Machinery & Mill Roll Co., Ltd. on the evening of August 20, set off the cultural waves in Xingtai City, Hebei Province with its unique and rich corporate cultural characteristics, and rapidly became the focus, won wide favorable comments from local media, people and leaders at all levels.

## 案例 CASE

**中钢四川公司参加“我为蓉城添新绿”员工义务植树活动**  
Sinosteel Sichuan Co., Ltd. participated in staff's volunteer planting activity “I Contribute to a Green Chengdu”

为积极倡导绿色低碳的生活方式，展示中央企业良好的社会形象，2011年3月11日，中钢集团四川有限公司在成都市郫县红光镇举行“我为蓉城添新绿”员工义务植树活动。

3月11日一大早，中钢四川公司在蓉员工近30人兴致勃勃来到植树现场。大家分工协作，挥锹铲土，提水浇灌，抚育施肥，呈现出热火朝天的劳动场面。活动累计为红光镇当地义务种植杨树200余株。

In order to advocate green and low-carbon life, to show great social image of central enterprise, on March 11, Sinosteel Sichuan Co., Ltd. held staff's volunteer planting activity “I Contribute to a Green Chengdu” in Hongguang Town, Pixian County, Chengdu.

On the morning of March 11, nearly 30 people of Sinosteel Sichuan Co., Ltd. in Chengdu came to planting site with great excitement. Everyone cooperated based on divisions of labor for spading, watering and fertilizing, bustling with activity. Over 200 trees in total were planted voluntarily for Hongguang Town.



## 案例 CASE

**中钢上海公司被授予“中央企业参与2010年上海世博会荣誉集体”称号**  
Sinosteel Shanghai Co., Ltd. was granted the title of “Honorary Central Enterprise for Participating in 2010 Shanghai Expo”



On February 25, 2011, Video Conference of Summing-up and Commendatory Meeting for Central Enterprise Participating in Shanghai Expo 2100 was held in the State-owned Assets Supervision and Administration Commission of the State Council. At the Meeting, advanced units and individuals who made outstanding contributions to successfully holding of Shanghai Expo were commended. And Sinosteel Shanghai Co., Ltd. was granted the title of “Honorary Central Enterprise for Participating in 2010 Shanghai Expo”.

At the meeting, Huang Shuhe, Deputy Director of State-owned Assets Supervision and Administration Commission read out Resolution on Honorary Central Enterprise for Participating in 2010 Shanghai Expo and commended the central enterprise and individuals who made outstanding contributions to successfully holding Shanghai Expo and gained marvelous results in 2010 Shanghai Expo. During the Expo, Sinosteel Shanghai Co., Ltd. based on the overall situation, following the arrangements and dedicated to improving stable security, developing receipt and communication, and spreading the spirit of Expo with outstanding performance, showing all the social image and spirit of central enterprise, was granted as Honorary Central Enterprise for Participating in 2010 Shanghai Expo.

2011年2月25日，中央企业参与2010年上海世博会总结表彰大会视频会议在国务院国资委召开。会议表彰了为上海世博会成功举办作出突出贡献的先进单位和个人。会上，中钢上海公司被授予“中央企业参与2010年上海世博会荣誉集体”称号。

会上，国资委黄淑和副主任宣读了《国务院国资委关于中央企业参与2010年上海世博会工作表彰的决定》，对在2010年上海世博会上作出突出贡献、取得优异成绩的中央企业集体和个人进行了表彰。中钢上海公司由于在世博会举办期间，立足大局、服从安排、勇于奉献，在促进安保稳定、开展接待交流、宣传世博精神等方面表现突出，充分展现出中央企业良好的社会形象和精神风范，被授予“中央企业参与2010年上海世博会荣誉集体”称号。





## 灾难救助，时刻心系社会

Relieving disaster and concerning about the society all the time

中钢心系社会，在出现重大自然灾害的时候，主动伸出援手，站在捐赠和募捐的第一线，发起赈灾救援活动，为社会做出贡献。

Sinosteel is concerning about the society. When major natural disaster occurs, Sinosteel helps and stands in the front line of donation and fund raising, launches disaster relief and rescue activities to make contributions to the society.

### 案例 CASE

#### 集团总部开展“送温暖、献爱心”社会捐助活动

Group headquarters launching social donation activity themed “offering warmth and showing love”

根据《北京市民政局关于在全市开展“送温暖、献爱心”社会捐助活动的通知》精神，海淀区有关部门组织辖区内企事业单位为北京市对口支援的新疆、内蒙古和青海玉树等地区捐款，切实解决灾区群众生产生活中存在的困难和问题。2011年4月7日，在集团工会印发开展捐助活动的通知后，在京单位广大职工积极行动起来，弘扬团结互助、扶贫济困的传统美德，踊跃为灾区、贫困地区群众捐款，献上中钢人的一份爱心。

此次捐助中，集团总部及京内单位1326名员工共捐款115426元。

According to the spirit of Notice on Launching Social Donation Activity for “Offering Warmth and Showing Love” by Bureau of Civil Affairs of Beijing, relevant departments in Haidian District organized enterprises in the governing area to donate for Xinjiang, Inner Mongolia and Yushu, Qinghai, supported coordinately by Beijing, to settle effectively the existing daily difficulties and problems of the people in disaster areas. On April 7, after the

trade union of the Group issued the notice of donation, large numbers of employees of Group companies in Beijing took active action, promoted the traditional virtue of working in unity and helping one another, and caring for the needy and those with extreme difficulties, and subscribed to the people in disaster area and depressed area to show the love of Sinosteel employees.

In this donation, 1,326 employees of Group headquarters and companies in Beijing denoted RMB 115,426 in total.



### 案例 CASE

#### 中钢吉铁被评为“2010年度吉林慈善奖优秀捐赠企业”

Sinosteel Jilin Ferroalloy Co., Ltd. was granted the title of “Excellent Donor” of “2010 Jilin Charity Award”



2011年3月29日，2010年度“吉林慈善大会”在吉林省宾馆隆重召开，中钢吉铁被授予吉林省2010年度“吉林慈善奖”优秀捐赠企业荣誉称号。

中钢吉铁始终以国有企业高度的责任感和使命感，积极参与各类社会慈善活动，努力肩负起应有的社会责任。面对2010年吉林地区的特大洪涝灾害，中钢吉铁专题部署抗洪赈灾捐款工作，在全公司范围内启动“我为灾区人民献爱心”捐款活动。中钢吉铁广大干部、职工积极响应，踊跃捐款，企业和职工共为灾区人民捐助人民币126万元。

在整个抗洪抢险期间，中钢吉铁第一时间集结了民兵预备役官兵，分批次深入到抗洪抢险第一线，疏散、抢救受灾群众及财物。为帮助灾区人民早日战胜困难，重建家园，中钢吉铁抽调大型机械设备，组织青年骨干奔赴灾区清淤排险，协调帮助桦皮厂镇东村于龙喜、林青山和西村杨家岭三家“一对一”包保农户重建住房，同时还为他们送去大米、面粉、豆油、烧柴、衣服、被褥等生活用品，使三个受灾户感受到中钢吉铁的温暖。

On March 29, 2011, 2010 Jilin Charity Meeting was held in Jilin Hotel. Sinosteel Jilin Ferroalloy Co., Ltd. was granted the title of “Excellent Donor” of 2010 Jilin Charity Award.

Sinosteel Jilin Ferroalloy Co., Ltd. with highly-developed sense of responsibility and mission, actively takes part in all kinds of social charitable activities and bears its social responsibilities. As for 2010 heavy flood disaster in Jilin, Sinosteel Jilin Ferroalloy Co., Ltd. specially arranged for the work of fighting flood and donations, and conducted the donation activity themed “My Love to the People in Disaster Area” in the company. The cadres and staffs were active in donation, with RMB 1.26 million was donated for the people in the disaster area by the company and its staff.

In the whole period of flood-fighting and emergency rescues, Sinosteel Jilin Ferroalloy Co., Ltd. promptly gathered militia and reserve-duty forces to fight against the flood evacuate and rescue the victims and their properties at the front line of flood rescue. In order to help the flood-affected people to overcome difficulties and rebuild their houses, the Group has transferred many large machines and devices, organized young cadres to dredge and eliminate risks in the flood-affected area, helped Lin Qingshan and Yu Longxi in East Village of Huapichang Town and three “one-to-one” guarantee peasant households in Yangjialing of West Village to rebuild their houses and bring them articles for daily use, like rice, flour, soya-bean oil, wood, clothes and bedding, making the three affected households were moved by the warmth of Sinosteel Jilin Ferroalloy Co., Ltd.





## “十二五”社会责任工作展望 Prospect of the social responsibility work in “12th Five-Year Plan” period

围绕打造优秀跨国企业集团的目标，努力实现由注重规模向注重质量、效益、规模均衡发展转变，由为钢铁行业服务向为钢铁行业服务为主、相关多元服务转变，按照五大业务方向，贯彻“业务聚焦、资源高效、拓展国际、增长集约”四大运营方针，实施“核心业务领先、英才价值驱动、管控持续优化”三大战略举措。在加快经济社会发展中，积极实施可持续发展战略，坚定不移地履行好企业社会责任，为加快转变发展方式、促进民生改善、构建和谐社

会发挥积极作用。  
Focus on creating an outstanding international enterprise group, work hard on achieving the balanced development transition from focusing the scale to putting emphasis on quality, benefit, scale, the transition from iron & steel industry service to iron & steel industry-oriented diversified services. According to the directions of the five business to follow four operation policies of “businesses focus, resource efficiency, international extension, increasing intensification” and carry out three strategic measures of “leading of core businesses, drive of elites value, persistent optimization of control”. In the case of fastened economic and social development, to actively carry out the sustainable development strategy and implement the enterprise social responsibilities firmly and steadfastly plays a positive role in accelerating the transformation of development model, promoting people's livelihood and building a harmonious society.

1	以人为本，诚以致远，共襄善举，努力以负责任的经营推动经济、社会与环境的可持续发展。 In the principal of “people first, persistent honesty and promoting charity”, the Group tries to drive the sustainable development of economy, society and environment with responsible operation.
2	坚持价值引领发展，深入推进新技术、新模式和战略性新兴产业，不断优化运营模式，改善运营环境及效率，推进责任采购、安全生产、责任销售，持续打造价值产业链。 The Group develops with the value as the guide, deeply boosts the new technology, new mode and new strategic industries, continuously optimizes the operation mode, improves the operation environment and efficiency, enhances responsible purchase, safety production, responsible sales, continues to create valuable industry chain.
3	坚持绿色运营理念，深入推行节能减排、降本增效、绿色办公，带动产业互利共赢发展，持续打造钢铁产业绿色服务链。 The Group sticks to the philosophy of green operation, further promotes the energy saving and emission reduction, lessening cost and increasing efficiency, and green office, drives the win-win development of the industries, and continues to create green service chain for iron & steel industry.
4	坚持助建和谐社会，积极投身社会公益，关爱支持员工成长，助力构建和谐社区，引领产业健康发展，持续打造和谐共赢链。 The Group helps to build a harmonious society, actively devotes itself to the social benefit, concerns and cares the growth of staff, assists in constructing a harmonious community, leads the industry towards healthy development, and continues to create harmonious win-win chain.

## 附录一：《2011 中钢集团可持续发展报告》评级报告 Appendix I: Rating report on 2011 Sinosteel Group Sustainability Report

中国社会科学院经济学部企业社会责任研究中心受中国中钢集团公司委托，从中国企业社会责任报告评级专家委员会中抽选专家组成“中钢集团 2011 可持续发展报告评级小组”，对《中钢集团 2011 可持续发展报告》（以下简称《报告》）进行评级。

### 一、评级依据

中国社会科学院经济学部企业社会责任研究中心、中国企业联合会、中国石油与化学工业联合会、中国轻工业联合会、中德贸易可持续发展与企业行为规范项目、WTO 经济导刊、中国企业公民委员会联合发布的《中国企业社会责任报告编写指南（CASS—CSR 2.0）》。

### 二、评级结论

《报告》系统披露了“可持续发展治理”、“价值产业链”、“绿色服务链”和“和谐共赢链”等部分的关键指标，覆盖了一般采矿业、机械设备制造业和批发贸易业核心指标的 57.6%，具有一定的完整性。

《报告》披露了所在行业“安全生产”、“职业健康管理”、“环保技术设备的研发与应用”、“环境管理体系”、“矿区保育、尾矿处理和矿区生态保护”等实质性议题，叙述较充分，实质性表现较好。

《报告》披露了“员工工伤人数”、“员工工亡人数”、“经营管理中存在的问题”等负面指标，并重点对企业安全生产的改进措施进行了阐述，具有较好的平衡性。

《报告》披露了部分关键绩效指标的历史数据，未披露横向可比较指标数据。

陈佳贵  
中心理事长  
全国人大常委  
中国社科院学部主席团代主席

《报告》结构清晰，采用中英文混排的形式，便于与外国读者交流和沟通；图文并茂，案例丰富，且对专业词汇进行了解释，在可读性方面表现很好。

《报告》以价值产业链，绿色服务链及和谐供应链为主线阐述了公司履责情况，且披露了公司在海外履行社会责任的情况，具有一定的创新性。

经评级小组评价，《中钢集团 2011 可持续发展报告》为四星级，是一份优秀的企业社会责任报告。

### 三、改进建议

- 1、增加关键绩效指标历史数据及同行业关键绩效数据的披露，提高报告的可比性。
- 2、增加所属行业社会责任核心指标的披露，提高报告的完整性。

### 四、评级小组

组长：  
中心常务副理事长、国务院国资委研究局局长 彭华岗  
成员：  
上海证券交易所高级经理 杨金忠  
商道纵横总经理 郭沛源  
北方工业大学经济管理学院副教授 魏秀丽  
中国社会科学院经济学部企业社会责任研究中心主任 钟宏武



Upon the request of Sinosteel Corporation, CSR Research Center of Economics Division of Chinese Academy of Social Sciences selected experts from Chinese Expert Committee on CSR Report Rating to form Sinosteel Corporation Sustainability Report 2011 Rating Team. The rating team rated Sinosteel Corporation Sustainability Report 2011 ("Report").

## 1. Basis of rating

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 2.0) published jointly by the aforesaid Center, China Enterprise Confederation, China Petroleum and Chemical Industry Association, China Light Industry Federation, the Sino-German Corporate Social Responsibility Project, China WTO Tribune and China Committee of Corporate Citizenship.

## 2. Conclusions

### Completeness (★★★★☆)

The Report discloses the key indicators in the aspects including "governance of sustainable development", "value-added industry chain", "green service chain" and "harmonious win-win chain" in a systematic way, covering 57.6% core indicators of social responsibility of the general mining, wholesale trade, machinery and equipment manufacturing industry, it has considerable completeness.

### Materiality (★★★★★)

The Report discloses the material issues in the industry like "safe production", "occupational health management", "research, development and application of technical equipment on environmental protection", "environment management system", "mining area conservation, tailing treatment and ecological protection in mining areas", with adequate statement and good materiality.

### Balance (★★★★★)

This Report discloses negative indicators like "work-related injuries and casualties", "problems existing in operation and management", etc., and focuses on the improvement measures for the safe production of the corporation, therefore bears good balance.

### Comparability (★★★)

The Report discloses the historical data on some key performance indicators, but without the data of horizontally comparable indicators.

Chen Jiagui

陳佳貴

President of the Center

Standing committee member of NPC

Director of Economics Division, Chinese Academy of Social Sciences

### Readability (★★★★☆)

The Report has clear structure and is convenient for the exchange and communication with foreign readers with the integration of both Chinese and English versions; with illustrated expression, abundant cases and explanation on terminology, the Report has good readability.

### Creativity (★★★☆☆)

The Report states the social responsibility fulfillment of the corporation with the main line of value-added industry chain, green service chain and harmonious win-win chain, and discloses the social responsibility fulfillment abroad, therefore bears considerable creativity.

### Overall rating (★★★★★)

Through evaluation and deliberations, the rating team agreed to rate Sinosteel Corporation Sustainability Report 2011 as excellent by giving a four-star rating to it.

## 3. Suggested improvements

- (1). Disclose more historical data of key performance indicators as well as the key performance data in the same industry, so as to improve the comparability of the Report.
- (2). Disclose more core indicators of social responsibility in relevant industries of the corporation, improving the completeness of the Report.

## 4. Rating team

### Head:

Peng Huagang, vice president of executive council of the Center, director general of Research Bureau of SASAC.

### Members:

Yang Jinzhong, senior manager with Shanghai Stock Exchange

Guo Peiyuan, general manager of SynTao

Wei Xiuli, associate professor of School of Economics and Management, NCUT

Zhong Hongwu, director of CSR Research Center, Economics Division, Chinese Academy of Social Sciences

Peng Huagang

彭华岗

Head of the rating team

Vice president of executive council of the Center

Director general of Research Bureau of SASAC

## 附录二：术语解释

### Appendix II: Definitions of Terms

### COD

即化学需氧量。是在一定条件下，采用一定的强氧化剂处理水样时，所消耗的氧化剂量。它是表示水中还原性物质多少的一个指标。

### 隔热耐火材料

气孔率高、体积密度低、热导率低的耐火材料。又称轻质耐火材料。包括隔热耐火制品、耐火纤维和耐火纤维制品。

### 耐火材料综合能耗

是指为生产每一吨耐火材料成品综合耗用的能源。包括从原料投入到成品入库的整个基本生产及为其服务的辅助生产所消耗的全部能源。

### 铁合金

按其功能分为“普通”和“特种”铁合金两大类。“普通”铁合金一般包括硅铁等，主要作为钢冶炼的脱氧剂以及在锻造时改善铸件性能。“特种”铁合金包括高碳铬铁、稀土铁合金、钼铁等，主要作为钢冶炼的合金添加剂，构成钢的实体成分，用于冶炼优质钢和特种钢。

### 炭素

炭素是以高纯度优质无烟煤，经过深加工改变煤的一些性质得出的物质。炭素制品按产品用途分为石墨电极类、炭块类、石墨阳极类、炭电极类、糊类、电炭类等。俗称炭砖或电炉块，主要用于冶金行业。近年来，医用炭素材料的发展也十分迅猛。

### COD

Namely the chemical oxygen demand (COD), which is, in given condition, the consumed oxidizer amount in when using a certain amount of strong oxidizer to treat the water sample. It is an index that indicates how much reducing substances left in the water.

### Thermal insulating refractory

This refractory has high porosity, low volume concentration and low thermal conduction, which is also known as lightweight refractory. It includes thermal insulating refractory products, refractory fibers and refractory fibers products.

### Comprehensive energy consumption of the refractory

It refers to the comprehensive energy consumed by every ton of refractory finished goods, which includes all the energy consumed by the entire basic production from raw material input to products warehousing and by its auxiliary manufacturing.

### Ferroalloy

It can be cataloged by its functions into two parts, which are "common type" and "special type". "Common type" ferroalloy generally includes silicoferrite etc., and mainly serves as the deoxidizing agent for smelting metals and as changing the casting property during forging. "Special type" ferroalloy includes high carbon ferro-chrome, rare earth-iron alloy, ferromolybdenum etc., which mainly functions as the alloying agent for smelting metals and the major components of the steel, it is used for smelting extra fine steel and special steel.

### Carbon element

Carbon element is the high purified and quality anthracite with changed property by deep processing. Carbon element is the substance obtained from anthracite. Carbon element products can be classified into graphite electrode, carbon block, graphite anode, carbon resistance rod, paste, electrical carbon etc. according to product purpose. It is commonly referred to as carbon block or electric stove block, and mainly used in metallurgical industry. For the past few years, carbon element materials for medical uses have developed very rapidly as well.



附录三： 反馈意见表

Appendix III: Feedback Information

尊敬的读者

非常感谢您阅读《2011 中钢集团可持续发展报告》。  
为了提高我们社会责任的工作水平，恳请您对我们的  
报告就以下几方面提出宝贵意见和建议。

Respected readers

We want to express out gratitude on you for reading Sinosteel Corporation Sustainability Report 2011. Considering the intention of improving our working level in aspect of social responsibility, we earnestly request you to put forward your valuable opinions and suggestions on our report in the following aspect:

1

报告的可读性  
Readability of the report

2

报告的客观性  
Objectiveness of the report

3

报告的完整性  
Integrity of the report

4

报告的形式（包括版式、风格等）  
Form of the report (Including format, style, etc.)

5

其他意见  
Other opinions

请就上述意见通过以下任何方式发给我们：

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报告出版的环境考虑

Environmental considerations in publication of this report

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