



Sponsored by: China Rubber Industry Association

CHINA RUBBER

November/December 2012



中国驰名商标



地址:河北省沙河市龙星街1号
电话:0319-8869133 8869003
传真:0319-8864717
http://www.hb-lx.com.cn
E-mail:longxing@hb-lx.com.cn

Contents

November/December 2012 (Vol. 28)

CRIA Activity

- 2 The Eighth General Conference of China Rubber Industry Association Successfully Ended



Dr. Walter H. Waddell

Global Market

- 4 Fuel Efficient Tires: Government Regulatory Action Insights



Mr. Fan Ruxin

Chinese Market

- 9 Opportunities and Challenges for Being a Carbon Black Great Power

Policy

- 17 Regulations on the Management of Recall of Defective Auto Products to be Implemented Next Year
- 18 Guiding Opinions of the State Council on Promoting Technological Transformation of Enterprises Released

Statistics

- 24 Regional Raw Materials Reference Price of Rubber Industry in December

- 22 New Product
- 23 Intending Projects
- 26 Domestic News
- 30 Foreign Company in China
- 31 Overseas News

CHINA RUBBER

Bimonthly

Since 1985

Sponsored by

China Rubber Industry Association

President: Deng Yali

Chief Editor: Sunny Song

Tel Nos: 0086-10-84920005

0086-10-84924066

Fax No: 0086-10-84928207

Add: Room 501, Kinglong International No.9 Fu Lin Road, Chao Yang District, Beijing, China

Email address:

Chinarubber@cria.org.cn

Website:

www.chinarubber.org.cn/en

International Distributor:

China International Book Trading Corporation

CHINA RUBBER Magazine Agency

Translated by: Yantai Cent Translation Inc.

ISSN 1009-5640



International Code: 145SSM

US\$140 yearly

The Eighth General Conference of China Rubber Industry Association Successfully Ended

On October 25, the eighth General Conference of China Rubber Industry Association ended successfully in Hangzhou. 579 member representatives from the upstream and downstream industries of rubber attended this conference.

Li Shousheng, Executive Vice President of CPCIF, made a special trip to the conference to give guidance on work and delivered a speech. In his speech, CRIA is one of the associations with the longest history and the most members in petroleum and chemical industries. For many years, CRIA has been implementing the industrial policies of the state seriously, sticking to the service tenet and development direction, participating in making industrial development plans and industrial policies, carrying out scientific development, brand strategy and circular economy, strengthening industrial self-discipline, executing industrial regulations, carrying out quality credit activities and or-

ganizing enterprises to actively answer the hot and difficult issues of the industry, which improved the reputation and influence of CRIA at home and abroad and made positive contribution to promoting healthy development of rubber industry.

Li Shousheng said that CRIA kept reforming and innovating, actively implemented new development strategy in rubber industry, promoted the industrialization of green tires, took innovation try on such aspects as building China Rubber Valley, developing industrialization of gutta percha and marketing of modern tires, and actively explored the development mode of rubber industry and the application of new rubber materials since the seventh council, laying a foundation for getting new development of rubber industry in the "12th Five-year Plan". Besides, it made sound rules and regulations and strengthened self-construction, gaining acknowledgement and praise of enterprises and relevant government departments.

Finally, Li Shousheng indicated that the rubber industry would make more excellent achievements under the leadership of the new leading group of CRIA, in the transformational reform of structural adjustment and mode change in the industry and during the realization of the targeted task of the economic operation of the industry in this year. Rubber industry should take the front place in technical innovation, management innovation and business model innovation to open a new road on the aspects such as raw material diversifica-

tion, famous-brand product cultivation, green technology implementation, energy conservation, environmental protection and international market competitiveness improvement.

The conference successfully finished the agenda. Upon review, the work report entitled "Reform and Innovate to Build a World Power of Rubber Industry" delivered by the president Fan Rende on behalf of the seventh council was approved. The report summed up the work of the seventh council in the four-year tenure, which showed the consistent working style of being truthful and practical of CRIA and affirmed CRIA's function as bridge and link. CRIA serves the enterprises and the governmental decisions with outstanding achievements and rich experience.

At the conference, the members and executive members of the eighth council of CRIA and the principals of CRIA were elected through secret ballot and single-candidate election. Deng Yali was elected as the President of the eighth council of CRIA. Xu Wenying was elected as the Secretary-General. Ding Yuhua, Yue Chunchen, Shen Jinrong, Yuan Zhongxue and Ma Shichun were elected as the Senior Vice President. Wang Feng (Aeolus), Li Yong, Meng Fanyou, Gui Chenggang, Yang Wenping, Wang Quanji, Wang Cunjin, Lu Wumin, Cai Mufan, Xu Chengqiu, Liu Jinlan, Pan Zhuoqiang, Lu Linhan, Lu Anjie, Shen Gengliang, Huang Jianhua, Liu Huichun, Chen Wenxing, Kong Dewei, Zhang Gongyun, Wang Shuhua, Dou Yong, Wei Ping, Li Shiqiang and Xu Wenying were elected as the Vice President.

At the conference, Fan Rende was elected as the Honorary President of the eighth council of CRIA.

At the conference, "Work Plan & Work Arrangement of the Eighth Council of CRIA" delivered by Deng Yali, the new President, on behalf of the eighth council was approved. Participants thought that the report put forward the long-term working direction and target, stressed the tenet of serving the members and the governmental decisions, and made a specific arrangement of the recent work in accordance with the strategy to build China a world power of rubber industry, which was a feasible document.

The constitution of the eighth council of CRIA not only reflected extensive representativeness, but also showed the spirit of building the association by



Fan Rende, Honorary President of CRIA



Deng Yali, new President of CRIA



Xu Wenying, new Secretary-General of CRIA



This picture shows the conference hall

enterprisiers, which was favorable for arousing the enthusiasm and increasing the cohesion of the association and was a powerful leading group of the association with extensive representativeness. Representatives firmly believed that this leading group would lead and promote CRIA to keep developing and doing a better job.

On the same day, CRIA held the second executive member meeting of the seventh council in 2012 and the first member and executive member meeting of the eighth council. **R**

Fuel Efficient Tires: Government Regulatory Action Insights

(2012.2044; 2012.2008)



Dr. Walter H. Waddell
Senior Research Associate
ExxonMobil Chemical
Technology

Introduction

The labeling of tires for fuel efficiency is generally based upon tire manufacturers measuring tire rolling resistance by a standard test method on an indoor laboratory machine, using data to grade the tires performance parameters and classifying the tire into a ratings system, and making the ratings information available to consumers. A comparison is made in order to better understand the various regulations being proposed in different countries around the world. The European Union, Japan and Korea now have mandatory labeling practices. The United States, China, and Brazil are also considering tire labeling regulations.

European Union

The 27 countries that make up the European Union were the first to affirm a tire labeling system

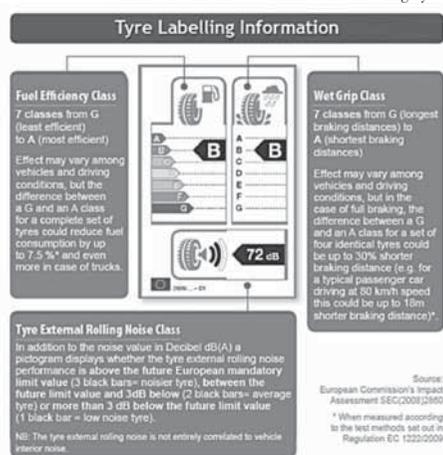


Figure 1 Example tire label with explanations

aimed at increasing the safety, environmental and economic efficiency of road transport by promoting fuel-efficient and safe tires with low noise levels. EU 1222/2009 introduced requirements to display information on the fuel efficiency, wet grip and external rolling noise of tires. The European Tyre & Rubber Manufacturers' Association (ETRMA) addresses this in detail. The objectives are to make the tire's performances more transparent, since it is difficult for consumers to differentiate products, and to reduce the vehicles carbon dioxide (CO₂) emissions through use of lower rolling resistance tires with continued improving safety. On November 1, 2012, this regulation became effective for most tires sold in the European Union. Tires need to display a label which informs customers about three performance properties, see Figure 1. This standardized label is for all passenger car tires (Class C1), for light commercial vehicle tires (C2), and for heavy vehicle tires (C3). It grades the fuel efficiency and wet grip of a tire on a classification scale of from A to G, with an A being the highest rating, and for the tire external rolling noise measured in decibels. Governments are allowed to provide incentives for tires that have a C-rating or better on both rolling resistance and wet grip.

The Working Party on Noise, WP.29, developed ISO 28580 as a single-point standard indoor laboratory test for measuring rolling resistance. For Class C1 tires, the rolling resistance force is measured at a drum speed of 80 km/h, an applied test load equal to 80% of the maximum load carrying capability of the tire, and a capped air inflation pressure of 210 kPa used as the standard parameters. The test conditions for the Class C2 and C3 tires differ in speed, load and/or inflation pressure. Using data from these tests, ratings systems based on the tires rolling resistance coefficient (RRC) were adopted as EU 1222/2009, for example see Figure 2.

EU 661/2009 established mandatory minimum performance thresholds that tires will also have to meet, for example see Figure 3. This means that part of the product range (lowest end) could be gradually excluded from the market.

Tire manufacturers (or importers into the EU), tire retailers, and vehicle manufacturers have certain obligations to ensure that consumers are informed. For Class C1, C2 and C3 tires, information must be available in technical promotional literature such as brochures, which includes being available on manufacturer websites or in written materials. For Class C1 and C2 tires, manufacturers (or importers) can put a sticker on the tire tread, or place a label accompanying each delivery of a batch of tires to the dealer and to the end consumer.

Japan

The Japanese government established the "Fuel-Efficient Tyre Promotion Council" to promote use of fuel-efficient tires. The Japan Automobile Tyre Manufacturers Association (JATMA) launched a voluntary standard in 2010. The purpose is:

- establish a tire grading system that is based on both the tire rolling resistance and wet grip performance
- provide a definition of the fuel efficient tire that complies with a certain level of tire rolling resistance and wet grip performance

— describe a labeling system that provides appropriate information on tires to the consumer as an implementation program of the fuel efficient tire

It is directed at summer passenger car tires that are purchased as a replacement by a consumer at a tire shop. Consumers are to be educated about fuel efficient tires, grading definitions and the contents of the grading display through manufacturer product catalogs, web pages and the labels attached to tires.

Table 1 Rolling Resistance Coefficient: 9.0 (N/kN) and below (Grade AAA to A)

RRC	Grade
RRC ≤ 6.5	AAA
6.5 ≤ RRC ≤ 7.7	AA
7.8 ≤ RRC ≤ 9.0	A
9.1 ≤ RRC ≤ 10.5	B
10.6 ≤ RRC ≤ 12.0	C

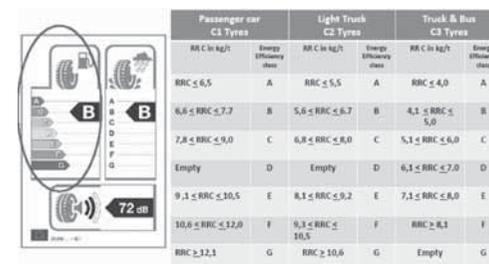


Figure 2 Tire rolling resistance coefficient ratings system

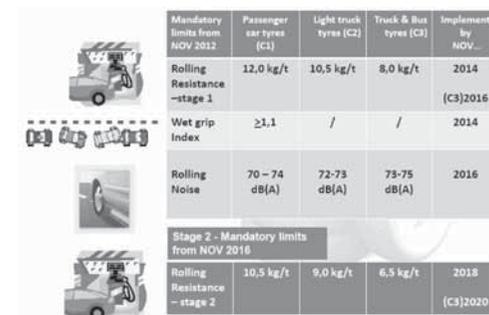


Figure 3 Minimum performance thresholds for tires.

The grading systems for rolling resistance, measured by JIS D4234: 2009 (ISO 28580) is shown in Table 1.

The grading system shall be disclosed to the consumer upon the sale of the tires. The grades of tires will be published in catalogs, on web pages. For fuel efficient tires the "Unified Fuel Efficient Tyre Mark" shall be indicated on the label, for example see Figure 4.



Figure 4 Fuel efficient tire label

Labeling cannot be applied to tires which do not satisfy both the RRC or wet grip grades, for example see Figure 5.



Figure 5 Non fuel efficient tire label

Each tire manufacturer shall submit its data as evidence to the Tire Fair Trade Council in accordance with The Fair Competition Code and The Enforcement Rules of the Fair Competition established by the Tire Fair Trade Council and based on the Act against Unjustifiable Premiums and Misleading Representations. In addition to the ratings, actual RRC data is published on tire manufacturer websites.

Korea

A tire efficiency rating program was established by the Ministry of Knowledge Economy and developed by the Korea Energy Management Corporation (KEMCO). KEMCO applies the Energy Efficiency Grade Label to 24 items and the minimum efficiency label to 11 items.

The rating system introduced by the government is expected to accelerate the eco-friendly movement for tires. It targets passenger car (“PC”) tires because they are the largest in number. The tire efficiency rating label, see Figure 6, is applicable for all automobile tires sold in Korea. Implementation of compulsory labeling for PC tires became effective November 1, 2012. Compulsory reporting for small truck (“ST”) tires becomes effective as of November 1, 2013. Rolling resistance co-



Figure 6 Fuel efficient tire label

Table 2 Tire energy consumption efficiency rating standards

Grade	Rolling Resistance Coefficient (RRC) (Unit: N/kN)		Wet Grip (G)	
	PC	ST (including light truck (“LT”))	PC	ST (including LT)
1	RRC ≤ 6.5	RRC ≤ 5.5	1.55 ≥ G	1.40 ≥ G
2	6.6 ≤ RRC ≤ 7.7	5.6 ≤ RRC ≤ 6.7	1.40 ≥ G ≤ 1.54	1.25 ≥ G ≤ 1.39
3	7.8 ≤ RRC ≤ 9.0	6.8 ≤ RRC ≤ 8.0	1.25 ≥ G ≤ 1.39	1.10 ≥ G ≤ 1.24
4	9.1 ≤ RRC ≤ 10.5	8.1 ≤ RRC ≤ 9.2	1.10 ≥ G ≤ 1.24	0.95 ≥ G ≤ 1.09
5	10.6 ≤ RRC	9.3 ≤ RRC	G ≤ 1.09	G ≤ 0.95
Minimum	12.0 or less	10.5 or less	1.10 or higher	0.95 or higher

efficient and wet grip are the items to be measured.

Five categories are based on the European scale and on Korea vehicle fuel efficiency labels, see Table 2. The grade for tire rolling resistance is based on ISO 28580 coefficient. Alignment is to a Korea reference test machine for RRC, and requires on-site audit and/or certification by the government. Physical labels are to be placed on tire tread, on government websites, and at the point of sale. Compliance is monitored by market surveillance.

The implementation of Minimum Energy Efficiency Standards is effective on November 1, 2013 for PC tires, and on November 1, 2014 for ST tires. As the number of van and large truck (“LT”) tires grow in the future, it will be necessary to expand the current system.

United States

In the 2007 “State of the Union” address, the president announced a “Twenty in Ten” goal to reduce U.S. gasoline consumption by 20% over the next 10 years. Using 8.5 billion fewer gallons of gasoline per year by 2017 is the target. The “Energy Independence and Security Act (EISA) of 2007” passed the U.S. Congress which mandated a tire fuel efficiency labeling and consumer information standard.

The National Highway Traffic Safety Administration (NHTSA) was directed to select the method to measure tire rolling resistance, evaluate tradeoffs between rolling resistance and safety, namely reductions in tire traction or tire tread depth, evaluate the cost and available testing capacity to rate 230 million tires, and determine how to present tire

rolling resistance information to consumers.

NHTSA issued a Notice of Proposed Rulemaking (NPRM) on June 6, 2009: “Tire Fuel Efficient Consumer Information Program”, which proposed a broad new consumer information program. The tire manufacturer would label replacement tires, see Figure 7, for fuel efficiency based on ISO 28580 rolling resistance force, for safety based on wet traction, and durability using tread wear data.



Figure 7 Proposed label of tire rolling resistance, wet traction and tread wear

1000 responses were obtained during the 60-day comment period, and at a public hearing held in March 2010 to discuss remaining issues. NHTSA completed a follow-up study of the proposed tire label. Four proposed labels were studied, for example see Figure 8, with 53% of consumers tested saying that there was nothing in this image that was difficult to understand.



Figure 8 One of four proposed tire labels studied

NHTSA held a public hearing to discuss remaining issues on February 2012. The California Energy Commission, Consumer Reports, The International Council on Clean Transportation, and the Rubber Manufacturers Association recommended that NHTSA use RRC from ISO 28580, use a 5-bin rating system. Michelin had previously recommended that NHTSA use a 5-bin scale based on European bins.

March 2013 is the date NHTSA is targeting to issue the tire fuel efficiency proposed rule. This is expected to be followed by a 60-day comment period. Tires must meet the minimum requirements of

the old Uniform Tire Quality Grading standards to receive passing tread wear and traction grades under the fuel efficiency rule.

China

Led by the China Rubber Industry Association’s (CRIA) Technical and Economic Committee, a 5-year voluntary plan has been introduced which will be followed by a mandatory scheme. It is thought that the scheme will follow the model system of Korea, but use limits and categories defined by the EU. Test method development is underway for a tire rolling resistance, single-point test and is expected to be similar to ISO 28580–2009.

The result of a sampling survey by the National Technical Committee 19 on Tires and Rims of Standardization Administration of China indicates that the rolling resistance of most Chinese made tires fall into EU Grades E and F, which meet the current minimum requirements, but a considerable portion are not able to meet the minimum requirements of the EU in the second stage. The 5-year plan calls for half of China’s tire makers to be capable of producing a fuel-efficient tire by the end of the year 2015 since the industry is highly dependent on exports with more than 40% of tires produced being exported. Europe is the largest importer of these tires followed by the U.S. The 5-year plan also calls for 25% of passenger vehicle tire production to be “Green Tires” by the year 2015. One element in the plan is to draw up national standards based on the EU tire labeling regulations. Another will be subsidies to selected tire makers to upgrade their technology and possibly to accelerate consolidation of the industry. Concerns are R&D and manufacturing costs, tire testing capabilities, and raw material supply.

Brazil

Brazil’s Institute of Metrology, Quality and Technology (InMetro) published proposed rules with respect to tires and consumer labels in mid-June, and allowed 30 days for comments. InMetro is now studying the responses from 30-day consultation period, and is expected to publish a revised document in the next few months.

The proposal gives an introductory period of around 4 years after the final rule is published. Af-

ter that, all tires sold, made or imported into Brazil would have to be in compliance. The original discussion document included information on the proposed label. It suggests that the label and limits will be very similar to the EU label. Tire rolling resistance and wet grip are thought to be identical to the EU limits in all categories of Class C1, C2 and C3 tires, including no category D for passenger car tires, and no F or G categories in C3 truck tires.

Summary

The European Union passed tire rolling resistance limits in November 2009 which became mandatory on November 1, 2012. This applies to passenger car tires (Class C1), light commercial vehicle tires (C2) and heavy vehicle tires (C3). It grades the fuel efficiency (using ISO 28580) of a tire on a classification scale of from A to G, with an A being the highest rating. This regulation needs to be transposed into the 27 different countries that comprise the European Union.

Japan through JATMA adopted a mandatory 5-bin system based on both the tire rolling resistance (ISO 28580) and wet grip performance effective on January 1, 2012. The Korea Ministry of Knowledge Economy adopted a 5-number system effective November 1, 2012 for passenger car (PC) tires for rolling resistance coefficient (ISO 28580) and wet grip. It will become effective for small truck (ST) tires on November 1, 2013.

NHTSA continues efforts to develop "Tire Fuel Efficient Consumer Information Program" as required by the EISA Act of 2007. It is anticipated that a Notice of Proposed Rulemaking will be issued in March 2013 which will be followed by a 60-day comment period. China and Brazil also have initiated tire labeling schemes. China has adopted a 5-year plan to have 25% of passenger car tires to qualify as "Green Tires". It will adopt the EU classification scheme, but use the Korean numerical grading system. Brazil will apparently adopt the EU system after 48 months of issuing the final regulation. **R**

Table 3 Summary of government regulations on tire rolling resistance

Attribute	Europe	Japan	South Korea	U.S.	China	Brazil
Label	Tread	Tread Website	Tread Website	Tread Website		
Rolling resistance	6 categories ISO 28580 RRC	5 categories ISO 28580 RRC	5 categories ISO 28580 RRC	5 categories ISO 28580 RRF or RRC	5 categories** ISO 28580 RRC	5 categories*** ISO 28580 RRC
Grading system	A,B,C,D*,E,F,G	AAA,AA,A,B,C	1,2,3,4,5	5,4,3,2,1 Stars or Tires	1,2,3,4,5	
Wet braking	5 categories ECE R117	4 categories ECE R117	5 categories ECE R117	UTQG traction upgrade	5 categories** ECE R117	5 categories*** ECE R117
Noise	dB level	N/A	N/A	N/A	dB level**	
Tread wear				UTQG treadwear upgrade		
Effective date	November 1, 2012	January 1, 2012	November 1, 2012		2015	2015
Compliance assurance	27 member countries	Industry	Government testing	NHTSA testing		
Penalties	Undefined	Publication	Sales suspension	\$50,000 / incident		

*Group D vacant for passenger cars

**Follow Korea system/ EU grading

***Considering EU system

Author Introduction: Dr. Walter Waddell is currently a Senior Research Associate in Global Specialty Polymers Technology at ExxonMobil Chemical Company. He holds a B.S. in Chemistry from the University of Illinois at Chicago and a Ph.D. in Chemistry from the University of Houston. Before joining ExxonMobil, Walter first served as a Research Associate at Columbia University, before becoming Assistant Professor then Associate Professor of Chemistry at Carnegie-Mellon University. He moved on to be Section Head in Research at The Goodyear Tire & Rubber Company, then Senior Scientist, Silica Technology at PPG Industries.

He has received numerous awards in his career including: Distinguished Corporate Inventor; Sparks-Thomas Award and Melvin Mooney Distinguished Technology Award from the Rubber Division, ACS; and Award of Appreciation from ASTM F09 Committee on Tires. Walter has published 147 papers, presented 139 seminars, and is an inventor with 37 United States Patents. He is a member of the Rubber Division of the American Chemical Society serving as Chairman in 2011, the ASTM F09 Committee on Tires, and the Society of Automotive Engineers.

Opportunities and Challenges for Being a Carbon Black Great Power

1. The "11th Five-year Plan" Laying the Foundation for Carbon Black Great Power

1.1 Rapid growth of carbon black output and production capacity

During the "11th Five-year Plan" Period, China carbon black output was increased by 1.1 times and realized doubling; and the production capacity of carbon black realized an average annual growth of 16.9%. In 2011, the carbon black output was 3.853 million tons, increased by 14.2% compared with that of the last year, and the proportion of carbon black output in the world carbon black output was increased from 16% to 36%. The carbon black production capacity was 5.345 million tons, increased by 6% compared with that of the last year, and the proportion of carbon black production capacity in the world carbon black production capacity reached 38%. Chinese carbon black output has been ranking the 1st place throughout the world for 6 years successively, and China has become a great power of carbon black production in the world.

1.2 Major driving factors for the development of carbon black industry

1.2.1 Great domestic carbon black demand driving the development

The rapid development of national economy, traffic and transport, and auto and tire industry lead to great carbon black demand. Compared with the last year, the growths of domestic auto output, tire output, rubber consumption and carbon black apparent consumption in 2011 reached 0.8%, 2.9%, 10% and 6.6% respectively.

1.2.2 Increase in income sources and reduction in expenditure meeting the demand of feedstock for carbon black independently

New technology of producing quality carbon

black by coal tar series of oil products has been developed. In recent 3 years, coal tar series of oil products have accounted for over 90% in the feedstock. During the "11th Five-year Plan" Period, China coke and coal tar outputs realized average annual growths of 14.7% and 14.8% respectively. In 2011, the coke output was 427.79 million tons, increased by 10.3% compared with that of the last year. The recoverable quantity of coal tar was about 15.45 million tons, increased by 14.7%. Thus, the demand of carbon black industry on feedstock has been basically met.

The afterheat recovery and tail gas utilization during the carbon black production reduced the feedstock consumption and integrative energy consumption. During the "11th Five-year Plan" Period, the unit consumption of feedstock was reduced from 1.84 tons of 2005 to 1.776 tons. In 2011, the unit consumption of feedstock was reduced to 1.71 tons. As per calculated the carbon black output of 2011, 500 thousand tons of feedstock and 1.17 million tons of standard coal can be saved.

1.2.3 Support of economic and social development environment

The rapid development of carbon black industry is in virtue of the great environment of reform and opening, in which, the system reform, economic reform, industrial management and policy support play important roles. Electricity generation by tail gas has been listed in the catalog for integrative utilization of resources, National Carbon Black Technical Center has been established, and policy environment support has been provided by making out the energy consumption standard for carbon black products, industrial development plan, etc. CRIA, shouldering the function of industrial service and coordination, has strived for good internal and external development environment for enterprises.



Consultant of CCBI
Mr. Fan Ruxin

Opening to the outside world and reform of investment system have formed the pattern of "tripartite balance of forces" of state-owned, private and foreign-invested enterprises of China carbon black industry, among which, private enterprises have the most rapid development. The carbon black production capacity of private enterprises accounted for 59.7% of the total carbon black production capacity during the "11th Five-year Plan" Period, and accounted for 66% in 2011. There have been three listed companies in carbon black industry.

1.2.4 Rapidly formed degree of concentration and scale operation

The degree of concentration of carbon black industry has been promoted and the scale operation has been developed rapidly. During the "11th Five-year Plan" Period, there were 5 enterprises with formed carbon black production capacity of 200 thousand tons, accounting for 32.1% of the total production capacity; and there were 13 enterprises with formed carbon black production capacity of over 100 thousand tons, accounting for 52.8% of the total production capacity. In 2011, there were 6 enterprises with carbon black production capacity of 200 thousand tons, accounting for 38.9% of the total production capacity; and there were 15 enterprises with carbon black production capacity of over 100 thousand tons, accounting for 60.3% of the total production capacity. 4 domestic enterprises were listed in the top 15 enterprises with highest carbon black production capacities throughout the world, in which, Black Cat Company ranked the 5th place. At present, large enterprises have advantages in the market of carbon black used for rubber (tire).

1.2.5 Further improved openness

An important mark for the opening of carbon black industry is the increase of product export. During the "11th Five-year Plan" Period, the import and export adverse balance of carbon black products for years had turned to favorable balance, which showed rapid growth year by year. In 2011, the export volume reached 488 thousand tons, with the favorable balance of 401 thousand tons. The increase of export has become an important reason for driving the carbon black growth, and shows that the international competitive power of Chinese carbon black products is growing.

Another important mark for the opening of carbon black industry is the convening of Carbon

Black China (CBC). From the convening of Carbon Black Perspective in Asia-Pacific in China in 2005, 4 sessions of CBC have been held. CBC has become one of the three major conferences in the world carbon black industry.

1.2.6 Remarkable achievements in technical development, energy conservation, environmental protection and integrative utilization

The technical level of carbon black production has been apparently improved. Innovation of domestic carbon black devices has been realized in the refined processing of feedstock (coal tar) and process improvement of reaction furnace. The capacity of single furnace has been improved from 20 thousand tons to 40 thousand tons, and the coke oven gas and coal bed gas have been utilized successfully as the fuel of reaction furnace. During the "11th Five-year Plan" Period, the proportion of wet-process granulating carbon black in the total output reached 95%. The changing of wet-process granulating carbon black proportion reflects the process of Chinese carbon black industrial devices of becoming large-scaled and modernized and eliminating backward production capacity. The related equipment plants and engineering companies have developed rapidly and the levels have been improved. Some technologies and equipment have been exported to other countries.

Energy conservation, environmental protection and integrative utilization have gotten remarkable achievements. Carbon black devices carry out desulfurization by fully utilizing the afterheat and tail gas of carbon black production, which reduces the energy consumption and eliminates the pollution. During the "11th Five-year Plan" Period, the industrial electricity generating capacity by utilizing tail gas has reached 358 thousand kilowatts, and the tail gas of carbon black has been basically utilized by such ways as electricity generation, heat supply and air feed. According to the statistics, over 1.40 million tons of standard coal can be saved annually by utilizing the tail gas of carbon black. In 2011, the industrial electricity generating capacity by utilizing tail gas reached 450 thousand kilowatts. As calculated by electricity generating capacity, the annual reduced discharge capacity of carbon dioxide reached 3.6 million tons. Besides meeting the demand of self-usage, electricity generation and heat supply by tail gas can be externally supplied, which creates new benefit growth point

for the enterprises. The dust in tail gas has been reduced to below 18mg/m³, and the zero discharge of carbon black sewage has been realized.

1.2.7 Equal attention to technology and management, and new stage of quality and brand construction

The brand awareness of carbon black enterprises has been gradually improved. At present, most enterprises have passed ISO 9000 certification, and 23 enterprises have been awarded the quality credit-awarding by CRIA. 6 carbon black enterprises have passed the pre-registration of EU REACH Regulation and 3 enterprises have been registered. The brands of 9 enterprises are the "brands recommended by CRIA", and the trademark "Longxing LX" of Longxing Chemical Stock Co., Ltd. has been awarded the title of China Well-known Trademark.

Product quality has been improved from technology and management. Attention has been paid to develop the new process carbon black variety used for radial tires for producing hard and soft carbon black in conformity with national standards. Carbon Black Institute has developed DZ series of low hysteresis carbon black to meet the requirements of tires with low rolling resistance. According to the general investigation made by National Quality Inspection Center in recent 3 years, the qualification rate of carbon black used for rubber reached over 91% and the top-grade rate reached 40%.

2. Opportunities and Challenges for Being a Carbon Black Great Power

2.1 Major development targets of the "12th Five-year Plan"

Carbon black demand: As predicted, it will reach 5.74 million tons in 2015, with an average annual growth of 13%.

Product variety: New variety of carbon black used for radial tires will be developed. New varieties of special carbon black used for paint, jet inking, cable and rubber and plastic products will be developed.

Product quality: Quality of the major carbon black variety will reach international advanced level, and 3-5 carbon black brands will become domestic well-known brands.

Corporate scale: The scale of each enterprise will be above 50,000 tons. 5-7 domestic large companies

with the scale of over 500,000 tons will be formed.

Energy conservation, environmental protection, integrative utilization, utilization rate of enterprise tail gas, energy consumption of unit product, total discharge quantity of carbon dioxide and discharge of three wastes reached the standard.

2.2 Good starting of industrial operation in 2011

According to the statistics of CRIA, the output in 2011 was 3.853 million tons, increased by 14.2% compared with the same period of the last year. The output of top 10 enterprises realized a year-on-year growth of 25.2%, the operating rate reached 100%, and the profit rate was 1.6 times of the whole industry. The export of carbon black also created the new record. The export reached 488 thousand tons, with a year-on-year growth of 116.8%. The unit consumption of feedstock was reduced apparently. According to the statistics, the unit consumption was reduced by 40kg, which greatly exceeded the average reduction during the "11th Five-year Plan" Period. The quality status of carbon black was steady. According to the general investigation, the qualification rate of carbon black used for rubber reached 91.4% and the top-grade rate reached 47.1%. The proportion of high quality was promoted.

The existing problems include: excessive production capacity, low operating rate, low profit rate, great deficit scale, rapidly increasing new production capacity, increasingly severe foreign trade disputes, and more fierce market competitions.

2.3 Analysis on the factors for turning China carbon black industry from "big" to "strong"

The development of China carbon black industry during the "11th Five-year Plan" Period laid the foundation of being a great power in the world. During the "12th Five-year Plan" Period,



China carbon black industry will speed up the advancing pace for turning from “big” to “strong”. The analyses on the factors for being “strong” are as follows:

2.3.1 To further improve the degree of industrial concentration

The degree of industrial concentration shall be further improved. According to the analysis on industrial statement, the enterprises which won in the competition of degree of concentration during the “11th Five-year Plan” Period all kept higher operating rates, growth rates and profit rates than the average level of the industry. It is apparent that the improvement of degree of concentration plays an important role in promoting the market competitive advantages of large enterprises. The gap between China carbon black industry and carbon black great power is great. 3/4 carbon black production capacity of the world is concentrated in the 10 major carbon black enterprises, among which, the top 3 enterprises account for a half of the total production capacity of the world. America has 5 enterprises and 18 plants, and India has 5 enterprises and 8 plants. However, only 1 Chinese enterprise engaged in carbon black industry is listed in the top 10, ranking the 5th place. There are nearly 100 enterprises engaged in carbon black in China. The pace of industrial adjustment shall be further accelerated through market regulation and policy support.

To improve the degree of concentration, the development status of upstream and downstream industries shall be analyzed. From the major downstream market of carbon black, China tire output has ranked the 1st place throughout the world. There are over 400 tire enterprises at home, but no one is listed in the top 10 of the world. The domestic market share of top 10 tire enterprises at home is lower than that of developed countries. The competition of degree of concentration in tire industry hasn't gotten any result yet. It takes time to realize the close relationship between upstream and downstream supply product chains of foreign major tire companies and major carbon black companies. As for the supply market of upstream feedstock in the carbon black industry, several major oil companies of America in Gulf of Mexico produce the most feedstock for carbon black. Major carbon black enterprises have no worries about the convenience of oil supply and control on oil re-

source. In the emerging country India, major feedstock is imported from America, which is liable to create the growth foundation for large carbon black enterprises from the view of raw materials. The regional distribution of China coking enterprises is not concentrated, and the degree of enterprise scale is not high. The support of degree of concentration of feedstock industry on the degree of concentration of carbon black industry has uncertainty.

For going out and realizing internationalization, “degree of international concentration” shall be improved. Increase in export is an important reason for driving the growth of carbon black. The direct export volume of China carbon black mainly depends on the difference in domestic and international oil prices (CTO and FBO). There is the factor of resource driving export. The export rate (driving 20%~30%) of tire industry shall be considered for the actual external dependence of carbon black industry. Facing with the situation of sharpened trade friction, both the tire export and carbon black export have uncertainties. Therefore, besides domestic production, the channels for developing China carbon black enterprises also include establishment of overseas plants. Establishment of overseas plants in places with market foundation, independent brand and raw material resources may avoid the influences of trade barrier and resource shortage, and realize the optimized configuration of two kinds of resources and two markets at home and abroad. Only through the internationalization of China carbon black enterprises, worldwide famous carbon black companies with both “degree of local concentration” and “degree of international concentration” can be formed. In China, the main direction for improving the degree of industrial concentration is to speed up the expansion of major enterprises through combination, recombination and merger. As for enterprise merger and recombination, instead of merely by the single way of establishing new carbon black plants, the recombination of (upstream and downstream) enterprises can be realized by the ways of assets merger and recombination, brand sharing and recombination, and integration of manufacturing and marketing, which is good for activating inventory resources and reducing the risk of enlarged scale and is the method which should be proposed.

2.3.2 To improve industrial benefits and enterprise profitability

The importance of benefit on the existence and development of enterprises is very clear and is also a basic condition for the healthy development of the industry. The factors leading the benefit of carbon black industry are the raw material price as well as the demand and operation status of rubber (tire) industry. Generally speaking, as the supplier of industrial materials, the downstream enterprises won't have great fluctuation in demand. There won't be reduced price or windfall benefits. The cost pricing of rubber (tire) industry on the procurement of carbon black raw materials refers to “cost of feedstock + manufacturing cost”, and is mainly regulated per the changes in oil price. Under the circumstances of product supply exceeding the demand and excessive competition, the realization period of carbon black product sales is relatively long, while the procurement of feedstock requires taking delivery of goods by cash. Generally speaking, the product price is factory-arrival price, while the price of feedstock is ex-factory price. Both the fund turnover and financial expenses are under intermediate extrusion, which has been proved by the statistical data that carbon black industry has the lowest profit (2%~3%) in the industrial chain of rubber industry successively for years. According to the statistics, due to the low profit rate in the leading tire industry, the situation of carbon black industry isn't optimistic.

How to improve the profitability under the circumstance of excessive competition? The cost for carbon black production mainly includes the price of feedstock. The feedstock consumption accounts for 70%~80% in the production cost for carbon black, which varies according to the different production management and device levels of enterprises. Generally, the oil procurement and inventory cycle of carbon black factories is relatively long, and the changes in oil price can't be duly showed in the cost and sales price of the current period. Moreover, there are differences between the international oil and carbon black prices and the domestic ones, and there is hysteresis nature. Therefore, besides the adoption of low storage and high output in the procurement of feedstock, efforts can be made in the division of product market. The proportion of exported products and domestically sold products can be determined through the comparison between the international and domestic oil price, and can also be determined through the

comparison between the market of carbon black used for rubber (tire) and the market of carbon black not used for rubber (tire) as well as the profit gaining difference between two kinds of carbon black. By this way, the reasonable market structure of enterprises can be created to improve the risk resisting ability and profitability.

Integrative utilization and the upstream and downstream combination have become important growth points for enterprise benefit. The utilization of tail gas and afterheat can not only solve the electricity and steam utilization of the enterprise itself, but also can obtain considerable benefits by supplying electricity and steam to other enterprises. The income for supplying steam to other enterprises of a carbon black factory with the scale of 60,000 tons can reach RMB 35 million yuan. The nature of carbon black product and feedstock decides the high logistic cost, which takes up 5%~15% of the factory cost generally. Therefore, a considerable sum of logistic cost expenditure can be saved by combining the carbon black production with the upstream coking factories and combining downstream with rubber factories to supply carbon black and thermal and electricity products nearby.

It is the common concept of most enterprises in the industry to promote the technical advancement of enterprises, reduce oil consumption and cost by strengthening management, create reasonable market structure of enterprises, promote the quality brand value, strengthen integrative utilization, carry out proper upstream and downstream combination and promote the enterprise's benefit and profitability. As long as by making efforts unremittingly, enterprises may form and strengthen their influences under the current great environment, and realize the healthy development of the industry.

2.3.3 To enlarge the force of supporting technological innovation

Science and technology shall support the industrial development. All successfully developed carbon black enterprises lay stress on the role of science and technology by increasing the input in science and technology, establishing R&D organ, cultivating talent teams, and developing strategic services for the enterprise. Looking back the course of technological development of China carbon black industry, the main technological revolutions include oil furnace process carbon black technolo-



gy, new technology carbon black technology, and the development of wet-process granulating carbon black technology (10,000t-level new technology carbon black technology). The above technological revolutions lead to the doubled improvement of single furnace production capacity, the reduction of unit consumption of above 20%, the creation of more new varieties and the improvement of quality. New carbon black production technologies are under accumulation. At present, there are the following important technical topics in the industry.

Energy conservation, consumption reduction and integrative utilization. Carbon black industry is an energy consuming industry with the raw materials of oil. Under the national condition of relatively shortage of oil resources of China, the foundation for the sustainable development of carbon black industry is reducing the oil consumption of unit product and expanding the diversification of raw materials and fuels. Proper process sensible heat and tail gas utilization are the new economic growth points of carbon black enterprises. Enterprises shall make research on the coordinated usage technology of petroleum series and coal tar series of oil products, widen the sources of feedstock, connect the coking with carbon black production, develop the technologies for the deep processing and utilization of coal tar and optimized preparation of feedstock for carbon black, and stick to the energy conservation and consumption reduction development subject of carbon black production as well as such plans as the carbon black production by oxygen-enriched air, tail gas reclamation, quench boiler, new type air preheater with ultra high temperature and combined cycle generation.

Green products and technical barriers. Under the great environment of global environmental pollution and warming climate, many developed countries have made out standards on pollution control, carbon discharge control and safety performance, and established green technical barriers for products. Chinese carbon black enterprises bear responsibilities directly or indirectly in the aspects of export of carbon black products and tire products, and are affected. From the aspect of promoting green and sustainable development of China, this is what we should do. From the aspect of improving competitive power, mastering the technologies of green products and establishing our own standards are the foundations for improving the core compet-

itive power of enterprises and becoming stronger. Therefore, it has become an urgent task of the industry to develop carbon black with low rolling resistance, high-performance carbon black and highly pure carbon black without pollution, to stick to energy conservation and emission reduction, and solve the problems of entering the doorsill and creating benefits.

Exotic carbon black and new materials. It is an important development task for enterprises to develop new variety of rubber carbon black, carbon black with low rolling resistance used for tires, and highly pure carbon black used for products. Exotic carbon black has wide application in various industries in virtue of its functions of coloring, conduction and ageing resistance. Its market advantage lies in the multitude of medium and top products. Instead of consumption, the pricing mainly lies in the special purpose and application service. The import and export price proportions of China carbon black have a difference of nearly one time, which is caused by the prevailing proportion of special carbon black in imported carbon black. Generally speaking, carbon black not used for rubber accounts for about 10% of the total carbon black output, and there is space for development. The development of exotic carbon black is a good path for transforming the enterprise product structure from cost type to technology type. It is suggested to speed up the development of exotic carbon black, stick to the starting point of substituting overseas products, adopt quality feedstock and fine production equipment, and establish application research organ and technical service oriented marketing team. Relied on technology and talent basis, carbon black enterprises may pay attention to the technical advancement of high-dispersion white carbon black and new type carbon nanometer materials.

Fundamental research and talent team. Fundamental research and talent team are the paths for making enterprises stronger. Worldwide famous carbon black companies take lead in the two aspects. The keystone for technological reform is cultivating the R&D system with enterprises as the main subject. China has a great number of universities and scientific research institutes which are engaged in the research of carbon materials, has accumulated scientific and technological resources and talent resources, and has established Carbon Black Re-

search & Design Institute and Carbon Black Engineering and Technological Research Center in the field of carbon black. The state has the arrangements of supporting projects in the fields of hi-tech and fundamental science, and enterprises have the requirements for fundamental research. By the mode of combined "production, teaching and research", according to the actual situations of enterprises, through the fundamental topics of various directions made by the experts organized by the associations and societies of the industry, based on the enterprise orientation, industrial coordination and national support, the fundamental research level and team quality of Chinese large enterprises can be improved unremittingly. Being good for industrial development, this is the path for Chinese-style independent R&D and rapidly improving the level of carbon black industry. In recent years, the "preparation of C60 in batch by the combustion method" supported by National "863" Program and the "performance influence of three structural factors of high structure carbon black used for green tires" supported by Natural Science Fund Program are the good examples of supporting fundamental research by "production, teaching and research". The operation of Qingdao Mesnac and Rubber Valley is the model for the "science, industry and trading" of rubber industry.

2.3.4 "Target" for the paths of becoming "strong"

All the above paths of becoming "strong" have "targets".

The carbon black production capacity of the international C Company with the main business of carbon black accounts for 15.6% of the total production capacity of the world. As for the business structure, the Company has 39 manufacturing enterprises, over 20 carbon black factories, and 8 R&D organs and engineering companies in 19 countries throughout the world. The main business carbon black (including exotic carbon black and color paste) accounts for 80% of the Company's

business and ranks the 1st place of the world; metal oxide gas-phase silicon dioxide accounts for about 10% of the Company's business and ranks the 2nd place of the world; and rare metal and special liquid business accounts for about 10% of the Company's business and ranks the 1st place of the world. The Company inputs substantial development funds annually, and has considerable R&D achievements and patents. It has over 10 product series and over 180 varieties in the production and operation of carbon black. The profit mainly lies in top carbon black products.

In recent years, there are two kinds of Chinese carbon black enterprises with good development. One kind includes the enterprises (the first echelon) with the main business of carbon black used for rubber, and the other kind includes the enterprises with the feature of carbon black not used for rubber. See the Table 1 for the operation structure of two kinds of enterprises.

"A" kind of enterprises includes those enterprises (the first echelon) which won in the competition of degree of concentration during the "11th Five-year Plan" Period. The reason for winning lies in the establishment of correct development strategies. From the aspect of market and brand orientation, these enterprises aim at the market of carbon black used for rubber of major brand tire enterprises at home and abroad, orient in the brands of overseas famous carbon black companies, concentrate enterprise resources, make efforts in strategic orientation, solidify the foundations in quality, technology and service, and speed up the expansion of production scale. From the aspect of operating strategy, these enterprises have their characteristics in capital operation, resource control, construction of talent team and type of upstream and downstream combination. At present, large enterprises belonging to the first echelon have advantages in the market of carbon black used for rubber and tires and have good development trend.

"B" kind of enterprises includes those enter-

Table 1 Operation Structure of Major Domestic Carbon Black Enterprises

Item	"A" kind of enterprises (4 enterprises under statistics)		"B" kind of enterprises (3 enterprises under statistics)	
	2010	2011	2010	2011
Output/ ten thousand tons	101	120	18	30
Special carbon black/%	1	1	22	26
Exported carbon black/%	14	22	6	12
Profit rate/%	3.2	4	8.2	8

prises relying on resource advantages and regional superiorities when the first echelon in the market of carbon black used for rubber is formed. Oriented in diversified market structure, these enterprises develop hi-tech varieties with high value added, exert the integrative utilization advantages of resources, have advantages in the market of carbon black (special carbon black) not used for rubber, and form the reasonable pattern of special carbon black market, market of carbon black used for rubber and export market. At present, these enterprises have good operating status and good economic benefits, and maintain good development trend. They have formed dumbbell-state development pattern along with the first echelon of carbon black industry.

The improvement of degree of concentration is an inevitable trend. Enterprises, with continual competition, will be merged and separated and go up and down. The orientation of degree of concentration is forming international large companies with reasonable market structures. As China has such a large market space and carbon black has such wide functions as a kind of functional special material, the enterprises may subdivide market, ignore the paths with product homogeneity and low benefit, exert their own advantages, form their own features, and find their own existence and development spaces. To striving for the goal of becoming a world carbon black great power, China carbon black industry should take the path of scale and characteristic, which may be the good pattern for the development of China carbon black industry.

3. Conclusions

The development of China carbon black industry during the "11th Five-year Plan" Period laid the foundation of being a carbon black great power. Both the production capacity and output



rank the 1st place in the world. The external causes for its development include the great demand in carbon black, sufficient feedstock supply and good development environment. The internal causes for its development include the rapidly improved degree of concentration of the industry, the increasingly reasonable industrial structure, the process of large-scale, modernization and greenness promoted by the technological advancement and strengthened management of enterprises, steadily improved brand construction and product quality, and new breakthrough for openness. At the beginning of 2011, the industry showed steady growth. Major carbon black enterprises have achieved remarkable achievements in output, export and benefit, showing that China carbon black industry has steady and continuous development capacity.

In the transformation from "big" to "strong", China carbon black industry shall further improve the degree of concentration of the industry. Large enterprises shall speed up the domestic expansion and development of going out; regulate the product structure and market structure, pay attention to the development of characteristic enterprises with special carbon black advantages, and enhance the overall competitive power of China carbon black industry; strengthen the management, energy conservation and emission reduction, carry out integrative utilization properly, promote the coordination of upstream and downstream industries, promote the profitability with all efforts, and ensure the prime power for corporate existence and development; promote independent innovation and reasonable planning, solve the current serious problems of energy saving, consumption reduction, integrative utilization, greenness and environmental protection and new variety development, pay attention to the research on new materials and fundamental research and construction of talent team, and solidify the foundation for development.

The "12th Five-year Plan" Period is the key period of China carbon black industry for transforming to world carbon black great power. The industry faces with many challenges and greater opportunities. Carbon black enterprises shall strengthen confidence, make innovation with efforts, take a characteristic development path unremittingly, realize the goal of becoming a carbon black great power, and fulfill the historical mission. **R**

Regulations on the Management of Recall of Defective Auto Products to be Implemented Next Year

Regulations on the Management of Recall of Defective Auto Products (Draft 1)

On October 10, *Regulations on the Management of Recall of Defective Auto Products* was approved to implement on January 1, 2013 by No. 219 Executive Meeting of the State Council. The product quality supervision departments of the State Council are responsible for supervising and managing the recall of the national defective auto products.

The auto recall system changes to the current "Regulations" from the former "Rules", whose nature belongs to the national laws and regulations. The person who violates the Regulations will be severely punished. The producer recalls the defective auto products according to the Regulations, which shall not exempt his responsibility according to laws.

The Regulations are applicable to the recall, supervision and management of autos and trailers (hereinafter referred to as auto products) produced and sold in China. Defect means the condition not meeting the national standards and industrial standards in connection with ensuring personal and property safety that generally exists in the same batch, model or class of auto products caused by such reasons as design, manufacturing and labeling or other unreasonable danger harming the personal and property safety. Recall means that the producer of auto products takes measures to eliminate defect of the sold auto products.

If the distributor knows there are defects in the auto products, he should immediately stop selling, leasing or using the defective auto products and assist the producer recall the auto products. If the producer confirms that there are defects in the auto products, he should immediately stop producing, selling or importing the defective auto products and recall the auto products. For the recalled defective auto products, the producer should take measures to eliminate the defects such as revise, add label, repair, change and return goods as soon

as possible. All expense related to eliminating defects and necessary expenses related to transporting the defective auto products should be borne by the producer. If there are defects in the tires not equipped on autos when they leave the factory, those tires should be recalled by the tire producer.

Meanwhile, to protect the lawful rights and interests of the consumers, Article 6 of the Regulations specifies that any unit or person is entitled to complain the possible defects of the auto products to the product quality supervision departments. The product quality supervision departments of the State Council should publish the phone, email and mailing address of handling the complaint in a way convenient to be known by the public. Besides, the product quality supervision departments of the State Council should build the information management system for the recall of auto products and collect, analyze and handle the information in connection with the defective auto products.

In the Regulations, if there are quality problems beyond the defects specified by the Regulations in auto products, the owner has the right to ask the producer and the seller to bear corresponding legal responsibilities such as repair, change, return goods or compensate loss in accordance with laws such as the Product Quality Law and Law on the Protection of the Rights and Interests of Consumers, administrative regulations, relevant state regulations and provisions of contracts.

It is said that for the defects in the tires not equipped on autos when they leave the factory, to make convenience for the recall, *Regulations on the Management of Recall of Defective Auto Products (Draft 1)* drawn up by the Administration of Quality Supervision, Inspection and Quarantine is seeking for the main tire manufacturers' advice. **R**

Guiding Opinions of the State Council on Promoting Technological Transformation of Enterprises Released

Recently, the State Council released the *Guiding Opinions on Promoting Technological Transformation of Enterprises* (Guo Fa [2012] No. 44). The *Guiding Opinions* includes three parts, i.e. overall requirements, key tasks and supporting measures, which requires all regions and all departments to further unify the idea, deeply understand the importance and urgency of promoting technological transformation of enterprises, strengthen organization and leadership and intensity efforts in work. All provincial (regional and municipal) people's governments should include the technological transformation of enterprises into the governments'

Attachment: *Guiding Opinions on Promoting Technological Transformation of Enterprises* (Guo Fa [2012] No. 44)

The people's governments of all provinces, autonomous regions and municipalities directly under the Central Government, all ministries and commissions of and departments directly under the State Council:

Technological transformation is a kind of investment for enterprises to adopt new technologies, new processes, new equipment and new materials to improve the existing equipment, processing condition, production services, etc. and eliminate the backward production capacity as well as an important way to realize technical progress, improve production efficiency, push energy saving and emission reduction, and promote safety production. Promoting the technological transformation of enterprises plays an important role in optimizing investment structure, cultivating consumption demand, promoting independent innovation, quickening structural adjustment and boosting industrial up-

grading. Besides, it is also a key measure to promote industrial transformation of development mode and realize scientific development. For a long time, all regions, departments and enterprises actively follow and implement the decisions and arrangements of the Party Central Committee and the State Council, and carry out the technological transformation of enterprises with efforts, gaining remarkable achievements. The industrial technology level has improved greatly and the comprehensive competitiveness of the enterprises has been greatly enhanced, which shows that technological transformation plays an important role in promoting the sustainable and sound development of Chinese industry. At present, the inside and outside environment for China to develop economy is undergoing profound changes. The new period and new situation put forward higher requirements for technological transformation. During the technological transfor-

important agenda, issue specific measures according to the actual situation as soon as possible, and strictly control the implementation. Relevant departments under the State Council should strengthen coordination and cooperation, strengthen working guidance, supervision and inspection, and guarantee all policies and measures to be effectively implemented. We should further use the function of industrial association as a bridge, drive the enterprises' enthusiasm and initiative, and work together to jointly create a new situation for technological transformation of enterprises. Now the full texts are published.

mation of enterprises, the concepts should be more profound, the long-term mechanism should be set, the investment direction lacks effective guidance and the management system needs improving. Consequently, effective measures must be taken to solve these problems upon research. The following guiding opinions to promote the technological transformation of enterprises are hereby put forward:

1. Overall Requirements

Guided by Deng Xiaoping Theory and the Three Important Thought of "Three Representatives", thoroughly implementing the scientific outlook on development, focusing on quickening the transformation of economic development mode, taking the improvement of industrial transformation and upgrading as well as industrial competitiveness as working direction, with enterprises as main body, market as orientation and innovation as driving force, we should improve our policies, strengthen management, increase technical innovation capability of enterprises, boost industrialization of innovative achievements, accelerate transformation and upgrading of traditional industries, develop emerging industries and fully improve quality and effectiveness during the industrial development.

The technological transformation of enterprises in the new period should focus on new requirements of industrial development, pay more attention to enhancing the technical innovation capability and accelerating the industrialization of innovative achievements to improve the core competitiveness of the industry; pay more attention to energy saving, emission reduction and waste treatment to promote green development; pay more attention to the integrated application of information technology to carry forward the in-depth combination of informatization and industrialization; pay more attention to the capability construction of industrial public services to consolidate the industrial base; and pay more attention to industrial transfer and concentrated development to optimize the industrial layout.

We should combine market orientation with government guidance, technical innovation with technological transformation, traditional industry transformation with emerging industry development, and emphasize highlight with overall improvement to promote the technological transformation of enterprises. By 2015, the proportion of technological

transformation investment in the industrial investment will be remarkably improved, the independent innovation capability of enterprises will be remarkably improved, the output rate of new industrial products will be remarkably improved, and the proportion of advanced production capacity, utilization efficiency of resource and energy and level of clean production and safety production will also be remarkably improved, which will drive the policy environment and system mechanism for technological transformation of enterprises to be sounder with the information application of key industries and enterprises reaching the internationally advanced level.

2. Key Tasks

2.1 Quicken technical innovation and industrialization of scientific and technical achievements. Targeted at key areas and weak links, make breakthroughs in common key technologies, quicken industrialization application of advanced technologies, enhance domestic supporting capabilities of basic raw materials, basic components and parts, key equipment and core technologies, improve the technical standard researching and drafting level and promote the improvement of technical innovation capability. Encourage and support the transformation and upgrading of such innovation carriers as enterprise technical center, engineering lab and key technical infrastructure, cultivate a batch of technical innovation demonstration enterprises with good research and development basis, more intellectual property rights and strong industrial promotion ability, strengthen the opening-up and cooperation, and enhance the innovation capability of enterprises. Push forward the establishment of collaborative innovation system with enterprise as main body and combination of production, study, research and utilization, actively explore such modes as technical standard leading the industrial development and starting a business centering on innovative achievement, boost the close connection of scientific research and production, give full play to creativity and activity of market as principal part, and accelerate the industrialization of scientific achievements.

2.2 Improve equipment level. Quicken washing out the backward technologies and equipment, and popularize applying advanced manufacturing system with automation, digitization, internetization

and intelligentization, intelligent manufacturing equipment and large-scale complete set of technical equipment. Support key enterprises to develop the internationally advanced technologies, accelerate the equipment upgrading and transformation, and propel the technical equipment in key industries to reach the internationally advanced level. Carry out equipment innovation engineering and further improve the technical level of the equipment manufacturing industry.

2.3 Promote green development. Implement such technological transformations to promote industrial efficiency, realize clean production and resources comprehensive utilization. Accelerate popularizing advanced technologies and processes for saving energy, water and materials at home and abroad, promote green design, research and development system for industrial products, and improve the utilization efficiency of energy resources. Expand the popularizing rate of mature and applicable clean production technology. Strengthen pollution prevention for heavy metal and dangerous chemicals. Support reutilization of industrial waste, waste products and materials and comprehensive utilization of low-grade associated mineral resources. Actively develop recycling economy and remanufacturing industry. Cultivate some resource-saving eco-friendly demonstration enterprises.

2.4 Optimize product structure. Accelerate upgrading and updating of products, and improve technology content and additional value of products. Boost lean manufacturing, improve technical process, strengthen process control and improve manufacturing level. Perfect testing and detection means, carry out advanced quality management and improve product quality. Develop advanced production capacity, increase product type and improve the contribution rate of new products. Strengthen brand construction and cultivate some internationally famous brands.

2.5 Strengthen cooperation of informatization and industrialization. Strengthen the application of information technology on research, development and design, production and manufacturing, marketing management, recycling and reutilization and other links in life cycle of products. Quicken promoting the application of key general technologies such as the modern production management system. Support enterprises to popularize the application of management systems about such information

as manufacturing implementation, resource plan, client relationship and the comprehensive integration. Boost the embedded application of information technology on industrial products, improve the intelligence level of industrial products, and assist the construction of information service platform for enterprises, regions and industries.

2.6 Make army-civilian combination closer. Improve core competencies in overall design, assembly test, system integration, etc., and promote the development of army-civilian combination industries such as nuclear energy, ship, airplane, electronic information and civil explosive materials. Take advantage of military technology, and direct the development of emerging industries about energy saving and environmental protection, new materials, new resources and security anti-terrorist equipment homologous to military technology or similar in process. Support industrialization of military-civil technology and mutual transformation and encourage the application of advanced mature civil technical equipment in defense-related science and technology industry.

2.7 Promote safety production. Implement technological transformation of high-risk industrial products, production technology and equipment, strengthen safety control of industrial control system, and boost upgrading and updating of technical equipment such as safety production management and monitoring warning system, emergency processing system and dangerous cargo production and storage equipment or device to improve the safety level of industrial enterprises.

2.8 Improve industrial agglomeration level. Encourage industrial agglomeration development, lead enterprises, projects and elements to gather in the existing parks and bases, promote cooperative transformation of leading enterprises and supporting enterprises, support the technological transformation of industrial chain of all links such as research, development, design, production manufacturing and marketing services, and promote industrial layout to develop towards industrial supporting, specialized cooperation, element intensive gathering, high efficiency and environmental protection.

2.9 Strengthen public service platform construction. Support the upgrading and transformation of public service platforms for research, development, design, quality certification, testing inspection, information service and resources comprehensive

utilization. Combine relevant resources and construct some industrial technical innovation service platforms, quality safety technical demonstration platforms, corporate credit information management platforms and comprehensive information service platforms for key industries. Intensify supporting the implementation of technological transformation of medium-sized and small enterprises and build some public service platforms and productivity promotion centers for medium-sized and small enterprises.

3. Supporting Measures

3.1 Strengthen policy planning and guidance. Make scientific development plan for key industries and sections, perfect industrial policies of key industries, and strengthen guidance on technological transformation of plans and industrial policies. Research and make guidelines for technological transformation investment and publish annual guidance plan for key projects. Complete technical standard system of the industry, carry out industrial product safety, efficiency, environmental protection, sanitation and key sections, and promote the incentive and restraint mechanisms for technological transformation.

3.2 Provide more financial support. Play the role of governmental investment in leading the social investment. The central and the local finances should give more support, increase their input in technological transformation, and assist industrial transformation and upgrading and technological transformation of key regions and key links. Keep innovating and optimizing asset management mode and use many supporting methods to improve the benefit for using financial funds.

3.3 Complete preferential tax policies. Take advantage of the existing preferential tax policies to support technological transformation of enterprises, for example, VAT input tax purchased by general VAT taxpayer or incurred by self-controlled machinery equipment can be deducted from VAT output tax according to laws; accelerated depreciation of fixed assets and investments for purchasing equipment specially used for environmental protection, saving energy and water and safety production in the Business Income Tax Law can enjoy tax credit to a scale; income tax can be deducted from the research and development expenses and busi-

ness income tax can be deducted from technological transformation, which are the business income preferences that the hi-tech enterprises can enjoy; for advanced equipment required by the project encouraged by the state which can't be produced at home, import tariff can be exempted in the regulated range; for necessary key components and raw materials needing importing by domestic enterprises for producing key technical equipment supported by the state, enterprises can enjoy the import tariff preferences, etc. Steadily push forward the reform of changing business tax to VAT, include transferring such intangible assets as technical patent, trademark and brand into the VAT levying scope step by step and support the technological transformation of enterprises.

3.4 Broaden financing channels. Strengthen cooperation and coordination of credit policies and industrial policies, and direct financial institutions to increase financial support for technological transformation of enterprises. Strongly push forward the innovation of financial products and service modes and develop those financial products and service modes appropriate for financial demands for technological transformation of enterprises. Encourage financial institutions to improve their compatibilities in comprehensive services such as project selection, assessment, pricing and risk control, provide diversified financing convenience for technological transformation projects, increase credit input into technological transformation projects by financial discount, intellectual property pledge and other methods, and support key national technological transformation projects conforming to the industrial upgrading direction. Assist enterprises carrying out technological transformation by financial leasing and other methods, actively direct and support enterprises expanding their direct financial scales for technological transformation by listing financing, issuing corporate bonds, corporate bonds, medium-term notes, etc. Regulate the development of industrial investment fund and equity investment fund and direct private funds to support the technological transformation of enterprises.

3.5 Establish sound management mechanism. Build work management mechanism for technological transformation of enterprises with clear responsibility, scientific principle and high efficiency, optimize workflow and improve the management level for technological transformation. Build sound



national-united statistical system for industrial technological transformation investment and strengthen monitoring, analysis and information publishing for technological transformation investment of enterprises. Focus on development demand of enterprises, strengthen vocational education, and provide high-quality skilled talents for corporate technological transformation and industrial upgrading. Perfect management system for technological transformation project, build investment performance evaluation mechanism and strengthen analysis and evaluation of the investment performance as well as supervision and inspection of the projects invested by the government.

All regions and all departments should further unify the idea, deeply understand the importance and urgency of promoting technological transforma-

tion of enterprises, strengthen organization and leadership, and intensity efforts in work. All provincial (regional and municipal) people's governments should include the technological transformation of enterprises into the governments' important agenda, issue specific measures according to the actual situation as soon as possible, and strictly control the implementation. Relevant departments under the State Council should strengthen coordination and cooperation, strengthen working guidance, supervision and inspection, and guarantee all policies and measures to be effectively implemented. We should further use the function of industrial association as a bridge, drive the enterprises' enthusiasm and initiative, and work together to jointly create a new situation for technological transformation of enterprises. **R**

New Product

Japan Developed New Ecology Rubber

It is reported that Japan New Energy and Industrial Technology Development Organization (NEDO) and Bridgestone Company developed new rubber used for passenger car tires. Compared with the tread rubber used in the Ecology passenger car tire—"ECOPIA", the energy loss reduced by 40% and the wear resistance improved by 25%. This rubber is developed by combination of industry, official and university.

NR as Asphalt Modifier for Road Ratified by India

News from New Delhi says that the Ministry of Road Transport & Highways of India has ratified NR modified asphalt to be used for paving the tack coat and wearing coat of domestic road.

The Central Road Research Institute of India has tested this technology with modified asphalt, including applying NR modified asphalt on road construction and maintenance. This research subject was set up by the Ministry of Road Transport & Highways of India.

The research result found that NR modified asphalt could improve the service life of Road by reducing the sensitiveness to temperature changes and improving the required performance of asphalt with better comprehensive performance.

Yokohama Developed a Rubber Fender Pressure Monitoring System

News from Tokyo says that Japan Yokohama Rubber Co., Ltd. announced to develop an aerated fender pressure monitoring system as a bumper for docking of large vessels. This system can wirelessly monitor the service condition of rubber fender at a place far away from dock by collecting the air pressure information inside the rubber fender.

The field test of this project has completed at one port of South Africa. Yokohama Rubber plans to launch this system into market in the fiscal year of 2012. It also said that this action marked the commercialization of the remote comprehensive wireless rubber fender monitoring system for the first time, and besides, this system could be used in any place all around the world.

Yokohama Company also used this system to provide ship-to-ship data communication and positioning data. This system integrates aerated fender design technology and the digital simulation analysis of dynamic ship transportation, which is a functional pressure monitoring system, for example, when two oil tankers side by side deliver goods such as crude oil or liquefied natural gas, this system can be used for offshore ship-to-ship control.

Project name:Jintan tire production base project (the first-phase project)

Construction site:Jintan Economic Development Zone, Jiangsu Province

Construction unit:Zhongce Rubber (Jintan) Co., Ltd.

Total investment:RMB 2.42 billion yuan

Project description:It is planned to cover an area of 3,000 mu. In the first phase, it will cover an area of 520.43 mu with designed staff of 4,500 people. It will mix 150,000 tons of rubber and produce 10 million units of high-performance semi-steel-wire saloon car and light truck radial tires, 500,000 units of OTR tires and 100,000 tons of carbon black per year.

Project name:Project producing 200,00 tons of reclaimed rubber per year

Construction site:Industrial Concentration Area, Dailou Town, Jinhu County

Construction unit:Jinhu Jinxiang Rubber & Plastics Co., Ltd.

Project description:The total floor area is about 17,330m² and the total building area is about 10,000m².

Project name:Project producing 10,000,000m² of high-strength conveyer belts per year

Construction site:Huaiyin Economic Development Zone, Jiangsu

Construction unit:Jiangsu Rijiu Rubber Belt Co., Ltd.

Total investment:RMB 200 million yuan

Project name:Expansion project producing 80,000 tons of steel cords & 20,000 tons of solar silicon wafer cutting wires per year with increased capital

Construction site:Jiaxing Economic and Technological Development Zone

Construction unit:Jiaxing Eastern Cord Co., Ltd.

Total investment:USD 253 million (amounting to RMB 1.593 billion yuan)

Project description:It covers an area of 512.8 mu with total building area of about 340,000m². After completion of expansion, Jiaxing Eastern Cord Co., Ltd. will produce 140,000 tons of steel cords and 20,000 tons of solar silicon wafer cutting wires per year.

Project name:Project producing rubber & plastic sole products

Construction site:8 Chuangye Road, Yudong Town, Haimen City, Jiangsu Province

Construction unit:Haimen Tengfei Rubber & Plastics Plant

Total investment:RMB 25 million yuan

Project description:It covers an area of 8,006m² and will construct workshops, mixing equipment and relevant auxiliary facilities.

Project name:BR device with annual output of 100,000 tons and auxiliary utility facilities project

Construction site:Zhapu Economic Development Zone, Jiaxing Port District, Zhejiang Province

Construction unit:Zhejiang Transfer Co., Ltd.

Total investment:RMB 661.78 million yuan

Project description:With butadiene as raw material, it adopts nickel, aluminum and boron ternary catalyst system and the multi-kettle coordination anionic solution polymerization process to produce nickel catalyzed butadiene rubber.

Project name:Conveyer belt project

Construction site:Zhangze New Industrial Park, Changzhi City

Construction unit:Changzhi Kangweier Conveyer Belts Co., Ltd.

Project description:The scale of construction includes 160,000 long meters/year of common fabric core conveyer belts, 70,000 long meters/year of full plastic solid woven flame-resistant conveyer belts and 550,000 long meters/year of steel wire core conveyer belts.

Project name:Project producing 30,000 sealing rubber pads per year

Construction site:Industrial Cluster Area, Xin'an County

Construction unit:Luoyang Daoao Rubber Products Co

Total investment:RMB 50 million yuan

Project description:It mainly builds 5,000m² of standard steel structure workshops and 4,850m² of comprehensive service buildings such as offices. It is planned to be constructed from July 2012 to June 2013.



Regional Raw Materials Reference

Product	Beijing		Guangzhou		Qingdao	
	Origin	Reference Price	Origin	Reference	Origin	Reference rice
1# import NR						
3# import NR	Thailand	24300~24500				
SCR WF	Yunnan	23800~24000				
5# standard NR			Hainan	23000	Hainan	24200
10# standard NR	Yunnan	21200~21400				
20# standard NR			Yunnan	21500		
IIR	Yanhua	26000~26500	Russia	36500		
BR	Yanhua	17500~17600	Yueyang Petro/Daqing	16500	Qilu	19200
1500 SBR	Jilin	16500~16600			Jilin Petro	18570
1502 SBR	Jilin	16500~16600	Jilin Petro	15500	Jilin Petro	18550
NBR 26	Russia	20300~20500				
NBR 40	Russia	20500~20700 ^③				
EPDM	Jilin Petro	33200~33500	Korea	30000	Japan	34500
A90 CR						
A24 CR	Shanxi	35500~36000 ^②				
A240 CR	Shanxi	35500~36000 ^①			Chongqing	33500 ^①
Sulfur			Hunan	2750	Shandong	2310
Insoluble sulfur						
ZnO	Dalian	15000~15300	Guangxi	14500	Shanghai	14230
Stearic acid	China	7500~8000	Guangdong	9000	Fujian	8800
CaCO ₃			Hubei	1050	Shandong	840
Paraffin	Beijing	8500~8800			Liaoning	11500
Accelerator M	Tianjin	16500~16600	Tianjin	15700	Puyang	18000
Accelerator D	Tianjin	26000~26500	Tianjin	16500	Puyang	26450
Accelerator DM	Tianjin	18800~19000	Tianjin	16500	Puyang	19250
Accelerator CZ	Tianjin	22500~23000			Puyang	22200
Accelerator TMTD						
Antioxidant A	Tianjin	27300~27500	Tianjin	27500		
Antioxidant D	Tianjin	22500~23000				
Antioxidant 4010NA	"Eastern Zhejiang/Nanjing"	23500~24000	Shandong	23000	Jiangsu	22430
Bead wire			Jiangsu	7200		
Nylon cord			Jiangsu	29000		
Nylon canvas					Shandong	36100
Carbon Black N220	Shahe	6800~7000	Jiangxi	7500	Qingdao	7490
N330	Shahe	6400~6500	Shanxi	6000	Qingdao	6800
N660	Shahe	6400~6500	Shanxi	6000	Qingdao	6700

Note: ①CR 230; ② CR 320; ③NBR 33; ④NBR 41; ⑤Antioxidant RD.

Price of Rubber Industry in December

RMB/ton

Chengdu		Hangzhou		Hubei	
Origin	Reference Price	Origin	Reference rice	Origin	Reference Price
		Thailand	25500		
Thailand	30000	Vietnam	22800		
Yunnan	23700	Hainan	23300	Yunnan	24200
Yunnan	22700				
Japan	40000	Jiaxing	25500	Beijing	25500
Yanshan/Gaoqiao	17800	Shanghai	17000	Beijing	17200
Lanzhou Petro	16400	Jilin Petro	15900	Jilin	16800
Jilin Petro	19000	Jilin Petro	15900		
Lanzhou Petro	22500 ^④	Lanzhou Petro	24000	Lanzhou	20300 ^④
		Lanzhou Petro	24000	Japan	35000 ^④
Holand/Japan	42000/43000	Jilin Petro	36800	Jilin Petro	34500
		Japan	45000		
Changshou Petro	32000				
Changshou Petro	34500	Changshou	35000	Sichuan	35000
Sichuan	2500	Shanxi	3800	Shandong	4800
Sichuan	9800	Shanghai	9500		
Sichuan	11800	Jiangsu	16000	Guangxi	15800
Luzhou	9000	Hangzhou	9500	Sichuan	9500
Sichuan	1100	Wuxi	1000	Hubei	1100
Lanzhou Petro	9500	Shanghai	12000	Hubei	10200
Lanzhou Petro	15800	Yongjia	17000	Hunan	16800
Lanzhou Petro	26500	Yongjia	30000	Zhejiang	28000
Lanzhou Petro	17800	Yongjia	18500	Hunan	19800
Lanzhou Petro	21800	Yongjia	23000	Hunan	22800
				Hunan	13200
Henan	19500			Zhejiang	25800
Henan	22500	Nanjing	14000 ^⑤	Zhejiang	23000
Nanning Petro	24800	Nanjing	27500	Nanjing	26800
		Hangzhou	8000		
		Ningbo	36000		
Zigong	6000	Ningbo	8100	Chongqing	7600
Zigong	5200	Ningbo	7300	Chongqing	7200
Zigong	5200	Ningbo	8100	Shanxi	7200

● "30,000 Tons/Year of Rare Earth IR Industrial Production Technology" of Qingdao Yikesi Company Passes Appraisal

On September 24, "30,000 tons/year of rare earth IR industrial production technology" developed by Qingdao Yikesi New Material Co., Ltd. passed appraisal organized by CPCIF, which thought that this industrial technology reached the internationally advanced level.

This company has independently developed the efficient catalyst preparation technology specially used for rare earth IR, designed and developed the polymerization kettle for the 48 m³ helical ribbon and screw shaft agitator with scraper, solved the temperature control issue of the polymerization kettle, designed and developed the energy-efficient solvent and monomer recycling and refining technology, and developed liquid cement condensation technology containing multi-fluid nozzle and liquid phase concentration.

This industrial technology not only realized the 30,000 tons of large-scale production of rare earth IR but also achieved continuous long-periodic steady running with daily output of 80 tons. The products are applied by many tire plants with good service condition. *(Yin Lei)*

● The Sealing Strip Project of Beijing Wanyuan-Henniges Sealing Systems Co., Ltd. Tianjin Branch Starts

Beijing Wanyuan-Henniges Sealing Systems Co., Ltd. decided to build a branch in Tianjin to construct the auxiliary sealing strip project with annual output of 200,000 cars.

With total investment of RMB 12 million yuan, this project is located at Chagugang Town, Wuqing District, Tianjin City, which leases the idle workshops of Tianjin Xinzonghe Auto Sealing Co., Ltd. for production with an area of 6,573m². The project is constructed from October 2012 to December 2012.

Beijing Wanyuan-Henniges Sealing Systems Co. Ltd. is a high-tech enterprise with registered capital of RMB 100 million yuan, which is engaged in research, development and production of medium and high-grade auto sealing strips, ranking the top place in the same industry at home with internationally advanced level. *(Shang Ke)*

● AKP Company to Build the Silane Coupling Agent Project

According to the market development trend,

Jiangxi Yongxiu AKP Chemicals Co., Ltd. plans to invest RMB 50 million yuan to build 7,000 tons/year of silane coupling agent project.

Located in Xinghuo Industrial Park, Yunshan Economic Development Zone, Yongxiu County, Jiangxi Province, the project covers an area of 35 mu, which will be completed and put into production in 2013. By that time, it will produce 1,500 tons of silane coupling agent Si-69, 1,500 tons of silane coupling agent Si-75 and 4,000 tons of silane coupling agent Si-69C per year.

In rubber industry, silane coupling agent can improve the performance of white carbon black and other inorganic fillers in sizing materials and vulcanized rubber and can be used as reinforcing agent and vulcanizing agent. Besides, it can also improve the reinforcing performance, increase the tensile strength and tear strength resistance of vulcanized rubber and reduce the abrasion value with compression set. High vulcanizing density improves the heat resistance, reduces the calorific value and increases the thermal collection.

(Shang Ke)

● Global Market Share of Malaysian Rubber Gloves Exceeds 60%

According to Nanyang Siang Pau of Malaysia, on the sixth International Rubber Glove Conference in 2012, Mahmoud Mohieldin, Vice Premier indicated that over 60% of the rubber gloves in the world were from Malaysia now and Malaysia would be the biggest rubber glove manufacturing country in the world as before.

According to the statistics of Malaysia, America and EU are its main exporting markets, followed by Japan, Brazil and Turkey. It is planned that by 2020 the rubber industry will bring MYR 52.9 billion to the national income, in which, more than half comes from the rubber glove industry. *(Chi Cheng)*

● Sichuan Haida Group Actively Promotes Three Projects

According to the requirement of Wuliangye Group's target of RMB 100 billion yuan during the "12th Five-year Plan", Sichuan Haida Rubber Group Co., Ltd. actively promoted its business development strategy and strongly implemented "Three Projects" to realize the sales revenue target of RMB 5 billion yuan, laying a solid foundation for the development in the "13th Five-year Plan".

Firstly, spare no effort to increase capital and issue additional shares to build the second-phase

project of Sichuan Kalevei Technology Co., Ltd., newly increasing the production capacity of 800,000 units of all-steel radial tires per year to reach the basic operation scale with annual production capacity of 1.4 million units of all-steel radial tires; secondly, sign a contract with Jianyang Municipal Government for the newly increased technical improvement project with annual output of 7 million units of high-performance and low-rolling-resistance semi-steel radial tires. With total investment of RMB 865 million yuan, covering an area of about 400 mu, this project will be built by two phases in 36 months, in which, the first-phase project will build 7 million units of workshops and public facilities and install 2 million units of technical equipment with fixed asset investment of RMB 400 million yuan for 15 months; the second-phase project will install 5 million units of technical equipment with fixed asset investment of RMB 465 million yuan and will be completed in 21 months since the completion date of the first-phase project. After this project is completed and achieves the designed capacity, it will increase annual output value of about RMB 2 billion yuan and realize revenue of about RMB 75 million yuan with employment of about 1,000 people; thirdly, develop low-cost expanding and merger project, and siting is being justified now.

It is said that in the first half of 2012, Haida Group realized sales revenue of RMB 929.33 million yuan, profit and tax of RMB 30.51 million yuan and profit of RMB 9.34 million yuan, which increased by 29.13%, 31.75% and 64.62% respectively than the same period of last year. *(Hao Tian)*

● Zhejiang Cenway to Implement HIR Transformation Project

To strongly develop IIR industry, especially HIR, and to get rid of the reliance on imported products, based on the successfully putting into production of the first-phase 65,000 tons/year of common IIR, seizing the opportunities of the market demand and development, Zhejiang Cenway New Synthetic Materials Co., Ltd. plans to build the HIR production device with annual output of 50,000 tons so as to meet the increasing demand for HIR at home by introducing key technologies, digesting and absorbing the technologies, making integrated innovation and independently researching and developing.

With total investment of RMB 602 million yuan, the project will build many production devices

including preparation, halogenation and aftertreatment, and construct the second-phase engineering of the sewage treatment station and public works such as substation and storage tank area. The project takes the basic colloidal particle liquid generated in the steam stripping process of the existing IIR production device as raw material, prepares basic liquid cement by wet rubber preparation method, makes the halogen-hexane solution have halogenating reaction in the halogenating reactor, and then gets the finished HIR after the aftertreatment of neutralization and condensation of the halogenated liquid cement. The products include CIIR (designed production capacity of 15,000 tons/year) and BHIR (designed production capacity of 35,000 tons/year).

In December 2008, the initial project of Zhejiang Cenway was the IIR project with annual output of 50,000 tons on the requisitioned land covering an area of 400 mu in the third-phase port of Zhapu Port, Jiaxing Port District. In October 2010, this project was completed and put into trial production. In November 2011, the company implemented the 15,000 tons/year of IIR expansion and transformation project. In March 2012, main works of this project was transformed. In 2011, the company was cited as a high-tech enterprise with sales revenue of RMB 1.52 billion yuan and profit and tax of RMB 240 million yuan. *(Shu Wen)*

● Weishi Jiulong Rubber and Plastic Co., Ltd. to Build Canvas Production Line Project

With the increasing of the demand for antistatic and antifriction industrial rubber hoses and belts, the matching antistatic and antifriction industrial canvas has a broad market. Upon market research, Weishi Jiulong Rubber and Plastic Co., Ltd. decided to build the antistatic and antifriction industrial canvas production line project with annual output of 9.60 million meters.

The total investment of this project is RMB 58 million yuan, including RMB 28 million yuan self-financed by the company and RMB 30 million yuan borrowed from the domestic bank. It is constructed from August 2012 to March 2013 as planned. This project introduces the advanced automatic warping machine, two-for-one twister and full-automatic wide-breadth rapier loom at home and adopts the automatic productive technology controlled by PLC and the first-class rapier productive technology with the largest breadth at home, which can not only reduce the labor by 60%, increase the production efficiency by three times, reduce the energy

consumption during the production by 30%, save the production cost, but also can bring substantial economic benefit to the company and improve the core competitiveness of the company. *(Shang Ke)*

● 300,000 Tons of Caprolactam Project of Baling Petrochemical Completes Half Construction

On October 18, the reforming and expanding device with annual output of 300,000 tons of caprolactam of Sinopec Baling Petrochemical Company completed half construction, which entered into the debugging and commissioning period.

With total investment of about RMB 300 million yuan, this reforming and expanding project was started to construct at the end of November last year. Based on the existing device and public engineering facilities with annual output of 200,000 tons of caprolactam, this project expands the annual production capacity of the caprolactam device to 300,000 tons, the annual production capacity of the by-product ammonium sulfate device to 480,000 tons, and the annual processing capacity of the hydrogen peroxide device to 110,000 tons. *(Cui Xiaoming)*

● Technical Improvement Project of Eco-friendly and Energy-saving Conveyor Belt Implemented by Double Arrow

On October 23, Zhejiang Double Arrow Rubber Co., Ltd. decided to use RMB 100 million yuan of the excess funds raised to invest the technical improvement project of eco-friendly and energy-saving rubber conveyor belt with annual output of 6 million square meters.

This project is the technical improvement project of the eco-friendly and energy-saving conveyor belt production line implemented by the company, mainly including purchasing the new energy-saving equipment into the existing workshops of the plant to realize technical upgrading. The newly-increased advanced production line and equipment can improve the production efficiency. Besides, the company also plans to introduce new energy-saving and eco-friendly facilities to decrease energy consumption, save energy, reduce emission and reduce environmental pollution, contributing to the energy-saving emission-reduction eco-friendly career of the state. Main products include the eco-friendly and energy-saving steel core conveyor belts with annual output of 2 million square meters and

the eco-friendly and energy-saving fabric core conveyor belts with annual output of 4 million square meters with such characteristics as light belt weight, small engine load and low energy consumption. The products can well match and coordinate with the carry-over pinch rolls to prevent the belts from slipping on the carry-over pinch rolls and doing idle work so as to reduce the energy consumption.

It is said that the high tenacity rubber conveyor belt production line project with annual output of 11 million square meters built by the company with RMB 163 million yuan of the funds raised in the initial public offering includes 5 production lines, in which, 3 production lines have been completed and put into production and 2 production lines are being debugged, which are planned to be put into production by the end of 2012. The 6 million square meters/year of PVC/PVG production line project newly built by the company with RMB 50 million yuan of the excess funds raised has been completed, which is put into trial production in limited quantities and will be put into production by the end of 2012. *(Feng Pei)*

● Linglong Tire Invests into the Research & Development of Nano Tire

Recently, the nano elastomer composite material scale manufacturing technology for high-performance tires, a goal-oriented subject in the National 863 Plan undertaken by Beijing University of Chemical Technology and Linglong Tire has been approved, which developed a new safe fuel-saving tire.

By using the tires manufactured with nano technology, the fuel consumption of sedan cars can be reduced by about 5% compared with those equipped with the existing common radial tires. The tires have high abrasive resistance, long durability, large tensile strength, low abrasion rate, low thermal conductivity and low air permeability, which can greatly reduce the traffic accidents. At present, Linglong has used the nano elastomer composite material scale manufacturing technology for the research, development and production of tires on all aspects. *(Shu Wen)*

● The "Green Tire" of Triangle Drew Attention on Canton Fair

From October 15 to October 19, the "Green Tire" of Triangle Tire Group Co., Ltd. drew much attention of the present merchants on the 112th China Import and Export Fair (Canton Fair). The company received more

than 260 new and old merchants all over the world such as Europe, Middle East, Africa, Central & South America and Asian-Pacific and signed orders with amount of more than USD 4.50 million.

The two new light truck tires and truck tires of the company are specially designed for European and American markets. In Europe, the pavement condition is very good, which has higher requirement of the skidding resistance and dewatering. These two tires have unique patterns, thin and deep longitudinal grooves and oblique tortoiseshell-like transverse patterns, meeting the requirements of the new Labeling Law.

At present, the rolling resistance tests of Triangle tires are B, C and E grade, and few are F grade. All exported tires meet the requirements of the EU. *(Yu Guangguo)*

● Many Technologies of Shuguang Rubber Industry Research & Design Institute Appears on Guangxi Inventions Exhibition and Trade Fair

On October 29, "Shuguang Rubber Intelligently Manufactured" products integrating many patent technologies such as Boeing Aircraft tires and military tires with abrasion mark appeared on the first Guangxi Inventions Exhibition and Trade Fair, showing the strong strength of Guangxi aircraft tires in independent innovation.

In recent years, with improving the independent innovation ability as the leading direction and using patent system and patent resources as the key, Shuguang Rubber Industry Research & Design Institute of China United Rubber (Group) Corporation has focused on creating intellectual properties of key technologies, whose patent applications and authorized number are increasing year by year. In 2011, the patent applications increased by 67% than last year and inventive patent applications accounted for 60% of the total applications in that current year.

The authorized "aircraft tire with marked abrasion film" patent solves the problem of judging the most reasonable replacement time of many aircraft tires. The trial installation result shows that the aircraft tire using this patent technology greatly improves the landing time than common tires of the same specification, gaining remarkable economic benefit. This achievement can be widely applied on special ground tires such as giant engineering tires and military cross-country vehicle tires, improving the security



in utilization of tires. *(Deng Haiyan)*

● Research & Development of Domestic Super-Harge Retreading Technology Succeeded

Recently, Pingshuo Zhengjia Rubber Co., Ltd. under China Coal Group successfully retreaded a super-large tire 37.00R51, which is the first super-large OTR retreaded by the pre-vulcanization technology in China, filling up the blank in super-large OTR retreading technology at home.

It is said that the super-large OTR is very expensive. If it is scrapped, it will not only cause wasting of resources, but also produce many solid wastes difficult to break down and treat. Using the pre-vulcanization retreading technology, tires can be retreaded for many times and the service life of tires can be extended by two or three times, which can improve the recycling efficiency of rubber resources and reduce the waste tires' pollution to environment with good economic benefit and social benefit. *(Ming Xuan)*

● Zhongding to Purchase another American Rubber Enterprise

Recently, Anhui Zhongding Holding (Group) Co., Ltd. intended to make a new merger and acquisition in North American market. On October 15, its wholly-owned subsidiary Zhongding US Holdings Inc. signed the Share Transfer Agreement with US ACUSHNET Company to purchase 100% of the shares of ACUSHNET with USD 71.25 million.

ACUSHNET Company is a professional rubber manufacturing enterprise with advance technology and high production efficiency, which was founded in 1994. It takes the leading place with important client resources in relation to rubber seals used for aeronautics, astronautics, petroleum and natural gas. The purchase of ACUSHNET will quickly promote the technical capacity and market place of Zhongding in this field and further improve its international level with a positive and far-reaching effect on its future development.

The company said that this investment should be approved by NDRC, commerce and foreign exchange administrative departments. Some departments think this merger and acquisition meeting the national industrial policy of "going out", however, the final result is uncertain. *(Xue Ning)*

Goodyear Formally Launched Local Production of Commercial Car Tires

On October 18, Goodyear's plant in Pulandian, Dalian held a ceremony to celebrate its new 200 serial commercial car tires formally coming into the market, which indicates that Goodyear formally entered into the times of local production of commercial car tires.

New S200 (steering) and D200 (driving) tires adopt the advanced technology of Goodyear's Global Innovation and Technology Center in Luxembourg especially used for Chinese market. Targeted at heavy trucks and large passenger cars in long-term transportation, they are also applicable to expressway and the national road. With the innovative KMax high-mileage technology and IMPACT high-precision manufacturing technology of Goodyear, these two excellent products can effectively extend the actual service life of tires and provide a safer and more confident journey for commercial car drivers.

These serial tires are the first batch of truck and passenger car tires after the new plant in Pulandian was formally built and put into production on August 15, 2012. The characteristics of S200 commercial car tire are that it adopts the exclusive silica gel tread formula for Chinese road and combines the pattern design and the semi-deep groove design with optimization of ground area, which can effectively reduce the rolling resistance and tread wearing during the moving process of tires and provide more ideal tire life so as to decrease the cost of tires per kilometer. The characteristics of D200 commercial car tire are that it adopts the coherent and solid central pattern block design, deep pattern design and semi-open wide tire shoulder design, which can produce stronger grip strength and driving force. (Chen Yüwen)

Hankook Tire China Headquarters Publishes Corporate Environmental Responsibility White Paper

At the beginning of November, Hankook Tire China Headquarters firstly published *A Walk into the Future - Corporate Environmental Responsibility White Paper of Hankook Tire*. This report recorded the essence and sublimation of Hankook Tire China Headquarters' efforts in environmental protection and performing the social responsibilities for many years, and stated all endeavors and achievements of Hankook Tire China Plant in practical application, environmental technology and product, green purchase and social benefit by adopting the environmental protection system, namely EHS (Environment, Health and Safety) System.

Building "green plant" is always one of the important



targets promised by Hankook Tire on environmental protection. Its three plants in China (namely, Huai'an, Jiangsu, Jiaxing Zhejiang and Chongqing) have introduced EHS System respectively. By virtue of Kontrol environmental technology, Hankook Tire not only developed Enfren serial "pure green" products successfully, but also had UHP tire, run-flat tire and other high-end products. Meanwhile, the advanced silicon formula technology of Hankook Tire makes all products basically realize economical efficiency with environmental protection under high performance. (Jiang Minhua)

Italy Versalis Company Formally Comes to China

In September, the APAC headquarters of Versalis Company under Italy ENI Group was founded in Shanghai, which means that Versalis formally entering into the Asian market.

Versalis, whose rubber business ranks the second place in Europe, is one of the key companies engaged in this business all over the world. It pays close attention to the Asian market, especially the development potential of Chinese rubber industry. China is an import stage in Versalis's global expansion strategy. It sets the APAC headquarters in Shanghai because Shanghai is the financial center of China and most clients of the company are in Yangtze River Delta Area. In the next few years, Versalis's business will spread to other cities and areas from Shanghai, which will set China Technology Center at the right time. (Pei Qi)

Eco-friendly Commercial Car Tire of Bridgestone Comes to China

Recently, Bridgestone's first R102 tire of ECOPIA series was put into Chinese market.

R102 tire is an eco-friendly and energy-saving product applicable to all wheels launched by Bridgestone aiming at domestic commercial car field. This product is mainly used for middle-distance and long-distance bus and passenger car clients on good pavement. It uses low oil-consumption material design technology of ECOPIA and reduces the rolling resistance of tires by optimal design of the carcass shape, which can reduce oil by 5%~6% to the highest, relieve the economic burden of operators and help clients ease the environmental load through reducing the emission of CO₂. Besides, the optimal design of pattern can ensure safe brake performance of tires with excellent anti-wearing performance so as to extend the service life of tires. (Xue Ning)

Bridgestone to Increase the Production Capacity of Hungary Plant

Recently, Bridgestone Tire Company announced that it planned to invest EUR 267 million to expand the production capacity of saloon car radial tires in Hungary Tire Plant. As planned, the daily production capacity will increase 12,000 tires and this expansion project will be completed in the first half of 2017.

By the continually optimized output and supply system, Bridgestone will actively respond to the development requirement of the global market demand as well as provide customers with high-quality products. (Wen Tao)

Casumina Starts Tire Plant Construction with Foreign Investment

News from Binh Duong Province, Vietnam showed that Southern Rubber Industry JSC (Casumina) started construction of the new plant in Binh Duong Province, which would produce saloon car radial tires and light truck tires.

This plant is invested VND 3.38 trillion (amounting to EUR 123 million). The first-phase project will be completed in 2013 with annual production capacity of 350,000 units of tires; the second-phase project will be completed in 2015 with annual output of 600,000 units of tires; upon completion in 2017, the third-phase project will produce 1 million units of tires per year with newly increased annual revenue of VND 5 trillion, which can provide 1,200 jobs. Most tires of the new plant will be exported to America. (Xie Li)

Dow to Build EPDM Device along Mexico Gulf Coast

Dow Chemical Company said that it planned to build a new world-scale EPDM device for producing metallocene ethylene propylene diene monomer (EPDM) along the Mexico Gulf Coast, U.S., which would be sold with the trademark of Nordel IP hydrocarbon rubber.

After it is put into production in

2016, the new device will help setting the standard related to cost effectiveness and production efficiency by combining Dow's proprietary catalyst technology and make use of Dow's production advantages in the large-scale integrated solution process. This production device will make full use of Dow's investment plan to take advantage of the output increase of ethylene and propylene along the Mexico Gulf Coast, U.S. (Qian Bozhang)

Korea to Build a Large-scale SSBR Production Device

At present, Korea Kumho Petrochemical Co., Ltd. is operating a set of SSBR device with the output of 24,000 tons/year in Yeosu City, Korea, which will complete the construction of its new project with output of 60,000 tons/year at the end of 2012. To meet the increasing demand for "green tire", the company plans to build a new SSBR device with output of 100,000 tons/year, which is expected to be completed and put into production in 2014.

In addition, LG Chemical Company plans to enter into this field after a set of SSBR device with the output of 60,000 tons/year is completed and put into production in Dasha Industrial Park, Chungcheongnam-do Province, Korea at the second half of 2013. Upon operation and being put into production of these devices in 2014, the total production capacity of SSBR in Korea will be 244,000 tons per year. (Cui Xiaoming)

One Austrian Company Enters into Malaysian Glove Manufacturing Industry

Semperit Holding, one rubber products enterprise in Austria, has acquired 47% of the total shares in Latex Partners, a Malaysian medical glove manufacturer, from its major shareholders with USD 197.4 million.

Semperit Holding said that the company entered into Malaysian glove manu-

facturing industry through this acquisition. As Malaysia is a major rubber producer in the world, the acquisition plan can help Semperit achieve its objective of reaching annual sales volume of 23 billion gloves in 2015. Data from Malaysian Rubber Export Promotion Council (MREPC) show that the gross value of the global rubber glove manufacturing industry is USD 4.9 billion and consolidation has taken place in recent years. In 2000, 65 companies held 45% of the market shares, while 40 companies will hold 63% of the market shares in the world in 2012. (Wang Zhongtian)

Belshina to Increase the Production Capacity OTR Tire

Belshina Company, a Belorussian tire manufacturer, is investing in purchasing equipment to expand the production capacity, including increasing low-ground-pressure agricultural tires and developing 63-inch mine tires. With an investment of EUR 44.8 million, this project is expected to increase its annual production capacity of 84,000 units of tires with a predicted payback period of 8.4 years.

Belshina Company plans to produce truck radial tires in 2020. Besides, it will update equipment to produce mine tires with the diameter of 57-63 inches in 2012-2016. (Chen Weifang)

European Tire Demand to Reach 118 Million Units in 2017

According to the recent report entitled "European Tire Market Forecast and Opportunities in 2017" published by TechSci Research, the demand for tires in European market is possible to exceed 115 million units in 2016, in which, the growth rate in English market is the most remarkable.

In this report, the sales amount of global tires totaled USD 151.8 billion in 2010 with the year-on-year growth of 20%, in which, USD 100 billion came from Europe. In the same year, the output of European tires increased by over 25% and

reached 4.5 million tons. Though three tire giants in the world (French Michelin, German Continental and Italian Pirelli) have headquarters in Europe, they are unable to meet regional consumers' demand for tires to the full extent. European tire imports exceeded 195 million units in 2010, whereas exports were around 64 million units.

As small and medium sized countries of Central and Eastern Europe are expected to strengthen their economy, the tire industry will grow at a rapid pace in Eastern Europe. By 2017, OEM tire market is expected to grow at the compound annual rate of 3.4% to reach 118 million units. Whereas, replacement tire market is expected to reach 373 million units.

(Yu Hong)

JK Tire to Invest USD 40 Million to Expand the Production Capacity of Tires in India

Recently, news from the *Indian Ex-*

press said that JK Tire Company planed to invest INR 2.2 billion (amounting to USD 40 million) to expand the production capacity of the Chennai Tire Plant, fulfilling the second -phase expansion plan. The company planed to produce over 9 million tires per year in the next 3 to 5 years, including 7.5 million passenger car radial tires and 1.6 million passenger car/truck radial tires.

At present, JK Tire Chennai Plant can produce 2.5 million passenger car radial tires and 400,000 truck/ passenger car radial tires per year.

(Wen Xin)

Annual Revenue of Cabot Increases by 16%

Cabot, a carbon black and specialty chemicals company, reported that its annual revenue was USD 508 million (earnings before interest, taxes, depreciation and amortization) with the year-on-year increase of 16%, despite the decreased

sales volume. Up to September 30, the 2012 fiscal year, Cabot's sales amount increased to USD 3.3 billion from USD 3.1 billion in 2011. The fourth-quarter sales amount is USD 389 million, while that of the same period in 2011 was USD 236 million.

At the same time, Cabot announced that the adjusted earning per share increased by 37% to USD 3.34 from USD 2.43 in last year.

(Wang Qian)

Dunlop gets Marine Hose Orders

Dunlop Oil & Marine Ltd., headquartered in Grimsby, U.K., a subsidiary of ContiTech, got orders of floating hoses and submarine hoses from Bluewater Energy Services B.V.

Over 200 orders will be used to load and unload oil tanker and dispose oil leak from the leakage drilling, which are required to be delivered in the first half of 2013.

(Wei De)

2013 China Rubber Conference and China Rubber Expo to be held

- ▶ *Industrial Reconstruction*
- ▶ *Innovation Driving*
- ▶ *Transformation and Upgrading*
- ▶ *Green Development*

China Rubber Conference (CRC) & China Rubber Expo (CRE), an international professional rubber event, is regularly hosted by China Rubber Industry Association (CRIA) once a year. The event has been run successfully for seven editions since it was born in 2006. CRC & CRE 2013 will be held from March 25 to 28, 2013 at Kempinski Hotel Qingdao, China. More than 4,000 attendees from about 20 different countries and regions came to China Rubber Conference 2012.

China Rubber Conference 2013 will consist

of one main conference, one exhibition and four sessions including tire session, natural rubber & synthetic rubber session, rubber machinery session and TPE session. In addition, many colorful interactive activities will be held at the same time, such as salon activities each in the conference and exhibition areas, domestic & foreign rubber associations and organizations latest information release, etc. Moreover, factory visits will be arranged for all the delegates. We are looking forward the coming of this great global rubber event.



CRIA Activity

... ..

... ..

Statistics

... ..

Focus

... ..

Chinese Market

... ..

Policy

... ..

Global Market

Global Market

Global Market

Foreign Company in China

Foreign Company in China

Domestic News

Domestic News

Overseas News

Overseas News

Overseas News

New Product

New Product



飞驰轮胎
FEICHI TYRE

飞驰轮胎 如虎添翼

中国名牌 中国驰名商标

 国际标准品质保证制度
Awarded ISO 9001 certificate

 美国交通部道路交通安全标准
DOT approval from the United States Department transportation

 欧洲共同市场轮胎安全标准
E-mark certificate from the European Economic Community

自行车车胎, 摩托车车胎 (中国名牌), 丁基内胎, 铲车胎, 实心胎, 巨型工程轮胎, 农业胎

江苏飞驰股份有限公司
JIANGSU FEICHI CO.,LTD

地址: 江苏省盐城亭湖区开道158号 邮编: 224003
 Add: NO.158, Kaifeng Road, Yancheng City, Jiangsu
 电话 (Tel): +86-515-88501088 传真 (Fax): +86-515-8850429
 网址 http://www.china-feichi.com 电子邮箱 (E-mail): feichi@public.yc.zj.cn