Events

1. **China BlueStar (Group) Holding Limited Inaugurated**
   ChemChina, Blackstone Celebrate New JV

2. **Ren Jianxin Meets Former U.S. Trade Representative**
   ChemChina Receives CRO of Standard Chartered PLC
   Ren Jianxin Receives Adisseo APR Marketing Team

3. **Second HSE Coaching Launched at BlueStar Petrochemical (Tianjin)**
   CNCE Qualifies for International Bidding for Electromechanical Products
   Clothes and Quilts for Quake-hit Areas

Technology

4. **Chenguang Institute Develops Generic Technology of High-purity Tetrafluoropropanol**
   China’s Largest Low-pressure Floating-head Synthetic Methanol Reactor Unveiled

5. **Shenyang Chemical Gets Nod for Acrylic Acid and Ester Project**
   Dezhou Shihua Chemical Launches New Projects
   Sichuan BlueStar Machinery Rehabilitation Kicks off

6. **VLC Mother Liquor Recycling Plan Passes Review**
   First Proprietary Large-scale Crude Benzene Hydrorefining Facility Built in China

7. **Two SRDICI Projects Supported by MST**
   BRDII Develops Key Equipment for Giant All-steel Tires
   Jinan Yuxing Finds New Solution to Treat Chromium Residue

Company News

8. **Tianhua Institute to Establish Engineering Technology Research Center in Gansu**
   Qingping Phosphate Mine Wins Honor for Quake Disaster Relief
   Honghe Chemical Celebrates 50th Anniversary
China BlueStar (Group) Holding Limited Inaugurated

The joint venture of China National Chemical Corporation (ChemChina) and the US-based Blackstone Group has been formally established. China National BlueStar (Group) Corporation, one of the eight major subsidiary companies of ChemChina, has been transformed into a Sino-foreign joint venture, China BlueStar (Group) Holding Limited, which has been officially registered and inaugurated. Blackstone will hold a 20% stake in the new JV. The cooperation between ChemChina and Blackstone is the first instance of a Chinese central SOE (state-owned enterprise) introducing a strategic investor, rather than being listed on the stock exchange. The concerned government departments have attached much importance to this event.

BlueStar was established in 1984 by Ren Jianxin and his seven young companions. As the founder of BlueStar and the President of ChemChina, Ren is held in high esteem as an excellent entrepreneur and manager by Blackstone. Ren has been invited to take up the post of the Chairman of the new JV. Meanwhile, the Chairman of Blackstone Greater China Region, Antony Leung Kam Chung, and the director of Blackstone Asian Private Fund and the ex-president of Celanese, Ben Jenkins, will be the Vice Chairman and director of BlueStar respectively. The newly formed China BlueStar (Group) Holding Limited will be committed to the development of world-class advanced techniques and the creation of hi-tech equipment for advanced chemical materials. It will form its key technologies with independent IPRs (intellectual property rights), and will adopt advanced management concepts in global operations of chemical businesses, in order to improve BlueStar's ability of innovation and bring its operational management to a higher level.

ChemChina, Blackstone Celebrate New JV

The inauguration ceremony of China BlueStar (Group) Holding Ltd., the joint venture created by ChemChina and the U.S. Blackstone Group, was celebrated at the Diaoyutai State Guesthouse on October 20th.

President of ChemChina Ren Jianxin, President of Blackstone Tony James, Senior Managing Director of Blackstone and BlueStar Vice Chairman Antony Leung Kam Chung, Senior Managing Director of Blackstone and BlueStar Director Ben Jenkins, and managers and directors of ChemChina and BlueStar’s subsidiaries, all witnessed the event. Representatives of more than 30 banking, accounting and financial advisory firms also attended the celebration, including China Construction Bank (CCB), Bank of China (BOC), Bank of Communications, Agricultural Bank of China, China Development Bank (CDB), the Export-Import Bank of China, Standard Chartered, HSBC, UBS, Merrill Lynch, PricewaterhouseCoopers, Deloitte & Touche, etc. In addition, journalists from a number of media were also in attendance.

In his address, Ren said that under the shadow of the worsening global financial crisis, most of Wall Street's investors are struggling to get out of the quagmire; but Blackstone still went ahead with its investment deal with BlueStar in accordance with the agreement. Blackstone's decision is not only a proof of the value, growth and prosperity of BlueStar and China’s advanced chemical material industry, but also indicates the capability, credit and high sense of responsibility of Blackstone. Also, Ren expressed sincere thanks to related government departments, banks, agencies and media for their support and concern for the joint venture. “Only by creating a prosperous future can we repay investors and make greater contributions to society,” he said.

Tony James, Antony Leung Kam Chung, Ben Jenkins and representatives of some financial firms also addressed the ceremony. They pledged they would spare no effort to build BlueStar and bring it onto the world stage faster.
Ren Jianxin Meets Former U.S. Trade Representative

On October 22nd, ChemChina President Ren Jianxin met Charlene Barshefsky, former U.S. Trade Representative, at the ChemChina headquarters in Beijing. During the meeting, the two sides exchanged ideas on areas of common interest.

Ms. Barshefsky was the U.S. Chief Trade Negotiator and one of its major trade policy makers from 1997 to 2001. She has become a household name around the world because of her role in negotiations on China’s WTO membership. Her achievements for U.S. trade during her tenure are highly acclaimed in the U.S. She has been honored by Harvard Law School as a “great negotiating expert,” and her eloquent and strong negotiations have also been adopted for teaching cases at Harvard Business School.

Currently one of the global senior partners of the Wilmer Cutler Pickering Hale and Dorr LLP, Ms. Barshefsky provides customers worldwide with strategic and business advice. (Photo by Li Gening)

ChemChina Receives CRO of Standard Chartered PLC

On October 24th, ChemChina President Ren Jianxin received Richard Goulding, the Chief Risk Officer (CRO) and Member of the Management Committee of Standard Chartered PLC at the ChemChina headquarters. Mr. Ren briefed the guests on the business growth of ChemChina. Mr. Goulding said he appreciated ChemChina’s rapid development and expressed hope that Standard Chartered will enlarge and intensify cooperation with ChemChina.

Ren Jianxin Receives Adisseo APR Marketing Team

On October 21st, ChemChina President Ren Jianxin and BlueStar President Yang Xingqiang received Adisseo’s marketing team for the Asia-Pacific Region (APR). Adisseo CEO Gérard Deman delivered a briefing on the business operation of his company. Ren praised the operation performance of Adisseo and expressed hope that the company will achieve greater growth in the future. Accompanied by Ren Jianxin and Yang Xingqiang, Gérard Deman and his team paid a visit to the Chemical Industry Museum of China, located at the ChemChina headquarters building.
Second HSE Coaching Launched at BlueStar Petrochemical (Tianjin)

On October 13th, seven HSE (health, safety and environment) experts from Qenos (Australia) Pty Ltd. came to Tianjin to launch the second round of HSE check and coaching at BlueStar Petrochemical (Tianjin) Co., Ltd. They were to spend two weeks in Tianjin summarizing the first round of work, carrying out exchanges on compiling relevant documentation, checking performance on the 21 safety indexes and offering instructions for further improvement.

Meanwhile, the expert team would also help the company execute specific HSE training for the Chinese staff in order to establish a professional risk-evaluation team in the company. This would lay a solid foundation for completing the compilation of HSE documentation and striving to meet safety objectives this year.

CNCE Qualifies for International Bidding for Electromechanical Products

The Ministry of Commerce (MOC) posted the list of 16 enterprises that qualified for international bidding for electromechanical products in 2008, and China National Chemical Equipment Corporation (CNCE) was on the list. It was another major achievement for CNCE after qualifying as a bidding agency for investment projects of the Central Government. From now on, CNCE's bidding agency business will go global to better serve ChemChina and the chemical industry.

CNCE is one of the enterprises won multiple qualifications for A-Class bidding agency at the earliest at home. In 2007, it was listed among the first group of enterprises that had acquired the Qualification Certificate for Bidding Agency for Central Investment Projects from the National Development and Reform Commission (NDRC). Over the last two decades, CNCE has provided bidding agency and equipment purchase consultation services for infrastructural and technical innovation projects of over 1,000 enterprises, covering hundreds of assorted units in 16 chemical business sectors. From 2005 to 2008, CNCE undertook bidding agency for over 30 projects of ChemChina and organized over 1,000 events for bid opening and evaluation with the total bidding amount reaching RMB6 billion and a construction fund of over RMB600 million saved. It successively undertook bidding agency for projects including 130,000 t/a acrylic acid and ester, 500,000 t/a CPP (catalytic pyrolysis process) ethylene, 60,000-300,000 t/a ion-exchange membrane caustic soda, 60,000-360,000 t/a PVC, 50,000 t/a PVA, 900,000 sets of all-steel radial tires per year, 1,000,000 t/a clinker cement production line (with a new type of dry process using calcium carbide sludge), 30,000 t/a PMIDA, 10,000 t/a glyphosate, and purchase of raw and auxiliary materials, thermoelectric technical innovation, overall removal of plants and reconstruction of sewage treatment systems for enterprises.

Clothes and Quilts for Quake-hit Areas

Responding to the call of the Beijing Municipal Government, ChemChina headquarters and the Beijing-based subsidiaries donated clothes and quilts for the quake-hit areas. The photo shows the donated clothes and quilts being transported to designated places. (Photo by Li Meng)
PVC Mother Liquor Recycling Plan Passes Review

On October 21st, the preliminary design plan for PVC centrifugal mother liquor treatment and recycling, a pilot “zero discharge” project of ChemChina, passed a review by the expert panel in Beijing, marking the initiation of industrialization of the project.

In engineering design, the plan adopts the new combined technology for PVC mother liquor recycling with a designed processing capacity of 130t/h. After completion, the project will undertake the processing and recycling of PVC mother liquor of the 300,000 t/a PVC and caustic soda complex of Siping Haohua Chemical Co., Ltd., with recycled water (60%) used for PVC polymerization and reverse osmosis (RO) concentrated water (40%) used to make up circulating water. The project will accomplish zero discharge for the chlor-alkali production system, which was controlled in a fully automated way to save 1,000,000 tons of water and reduce COD discharge by 400 tons every year. The total investment is expected to hit RMB13 million.

The project, based on a successful pilot run, was jointly mapped out by Hangzhou Development Center of Water Treatment Technology and Siping Haohua Chemical. The cost of pure water for PVC mother liquor is RMB8 per ton, twice that of recycled water. The system is easy to operate and obviously cuts cost. Currently, industrialization of the project is underway.

First Proprietary Large-scale Crude Benzene Hydrorefining Facility Built in China

The 100,000 t/a crude benzene hydrorefining facility at the Shandong Yuhuang Chemical Co., Ltd. has been in smooth operation for several weeks. The facility, designed by China Southwest Research & Design Institute for Chemical Industry (SRDICI) and built with technologies from the Sichuan Tianyi Science & Technology Co., Ltd. (Tianke), is the first large-scale crude benzene hydrorefining facility in China that incorporates the country’s own IPRs. Prior to this success, all the four large facilities of this kind in China were imported, with an annual output of 210,000 tons.

Boasting a processing capacity of 100,000 t/a, the facility will pour out petrochemical-grade pure benzene and xylene, with benzene purity reaching 99.9%, and total yield of benzene, toluene and xylene exceeding 98%. The facility is expected to recover its investment of RMB145 million in only two and a half years.

SRDICI and Tianke have been dedicated to the R&D of processing techniques, catalysts and specialty extraction reagents for crude benzene hydrorefining. In 2007, they built a 25,000 t/a unit and last August, another 50,000 t/a system was completed for Shandong Huanyu Group. Insiders believe that the crude benzene hydrorefining technology, with its low energy consumption and cost and fine quality, is the future of crude benzene refining. The commercialization of such technology in China can not only maximize the utilization of benzene resources but also contribute to environmental protection.
Shenyang Chemical Gets Nod for Acrylic Acid and Ester Project

Consignment by the National Development and Reform Commission (NDRC), the Liaoning Development and Reform Commission and ChemChina jointly organized the inspection of the 130,000 t/a acrylic acid and ester project of Shenyang Chemical Industry Group on September 25th. After comprehensive evaluation by the expert panel, the project passed inspection.

The project was approved by the NDRC in April 2004, listed among treasury bond projects of the year and started construction on March 1st, 2005. Seventeen months later, the project produced products according to spec on October 3rd, 2006. The project set three records in chemical project construction in Shenyang: the greatest construction amount, with installation of 1,004 sets of equipment, 5,567 instruments and 2,173 electric systems and laying of 160,000m-long pipelines; the most advanced technical equipment, with introduction of Mitsubishi-patented technology as well as German and Japanese proprietary equipment; and the lowest project investment, with a total investment of RMB1.208 billion and an actual investment of RMB1.147 billion. The project exercised four controls and gained experience for the industry: in project progress control, Shenyang Chemical spent only 17 months on construction compared to an average of 30 months abroad; in quality control, the qualification rate of all construction items reached 100%; in safety control, there were no personnel or equipment accidents during construction; and in investment control, the overall construction cost was effectively controlled by means of public bidding, optimization of the construction plan, strict control of equipment and material prices, tightening of site signature management, etc.

After the acrylic acid and ester unit had been put into operation in 2006, its performance assessment was completed with the concerted efforts of the Chinese and Japanese parties. With its production capacity, energy usage and product quality all up to the design specs, the unit passed 10 inspection items including environmental protection, safety, firefighting and data capture.

Dezhou Shihua Chemical Launches New Projects

On October 18th, Dezhou Shihua Chemical Co., Ltd. inaugurated its chemical projects at a new industry park. Wang Suilian, Deputy Governor of Shandong Province, attended the inaugural ceremony. Phase I of the project, with an investment of RMB1.8 billion, will achieve an annual output scale of 200,000 tons of caustic soda and 200,000 tons of PVC resin as well as sales revenues of RMB2 billion. Phase II, which involves an overall relocation of the old base of the company, will achieve an annual output of 400,000 tons of caustic soda, 400,000 tons of PVC resin, a power generation capacity of 150MW, 1,000,000 tons of environment-friendly cement and sales revenues of RMB5 billion. The projects, with a total investment of RMB2.5 billion, are scheduled to be fully completed within three to five years.

Sichuan BlueStar Machinery Rehabilitation Kicks off

On October 19th, the relocation and rehabilitation of the production base of Sichuan BlueStar Machinery Co., Ltd. kicked off at the Deyang Economic and Technological Development Zone in Sichuan Province.

Founded in 1966, the company is one of ChemChina’s subsidiaries in Sichuan, the largest chemical pressure vessel manufacturer in Southwest China, one of the top 50 machinery manufacturers for the country’s refineries and chemical plants, and the largest alloy steel frog supplier in China. It was hit hard by the devastating 5.12 earthquake.

Involving an investment of RMB650 million, its new site in Deyang City covers an area of 400,000m². The reconstruction of the site will be completed in two phases. The first phase is dedicated to establishing production lines for pressure vessels such as the 320-ton pressure vessels, 50-ton stainless steel pressure vessels, large spherical tanks and vessel heads and machining lines, and will last till May 2010. The second phase will turn attention to the alloy steel frogs, sea-water desalination facilities, etc. The site is expected to be fully completed for operation by the end of 2011.
Chenguang Institute Develops Generic Technology of High-purity Tetrafluoropropanol

Wang Yude

The Sichuan Provincial Department of Commerce and Sichuan Provincial Department of Finance held a meeting to inspect the R&D of High-purity Tetrafluoropropanol Generic Technology, a project undertaken by the Zhonghao Chenguang Research Institute of Chemical Industry since 2007, at the Zigong Municipal Bureau of Commerce. The experts praised the project from the perspectives of technology, economic index, environmental protection, social benefit, etc. and accepted the project.

Tetrafluoropropanol, a new type of non-corrosive fluoro-containing detergent with low toxicity and good lubricity, is widely used as processing agent for medicines, pesticides, dyes, fine chemical intermediates, textile finishing agents, fluoro-containing resins and perfluoro rubbers as well as detergent for electronic products. Tetrafluoropropanol, which also plays an important role in microelectronics and optoelectronics and does not damage the atmospheric ozone layer, is an excellent substitute for Freon detergent. The project, which adopts the unique telomerization technology, high-efficiency compound initiator and special fine purification process to produce tetrafluoropropanol with a purity of no less than 99.95%, is of world class. Additionally, the institute recycles solid and liquid wastes and adopts the liquid/solid plasma incineration technology with its proprietary IPR to treat non-recyclable wastes, causing no secondary pollution to the environment. Currently, the institute has commercialized the project, exported over 90% of its products and holds a large proportion of the Asian and European markets, especially in Taiwan.

With the adjustments of the country’s industrial policies in recent years, Chenguang Institute has developed more high-tech products with the support of state policies and aspires to build an export base for new fluorous and silicone materials. Since 2003, the institute has successively declared five organic-fluorine products including low-mooney-viscosity fluorous rubber, tetrafluoro resin, high-purity perfluoropropylene and tetrafluoropropanol to the Ministry of Commerce and gained financial support for exports.

China's Largest Low-pressure Floating-head Synthetic Methanol Reactor Unveiled

Tang Anshu

On October 14th, China’s largest low-pressure floating-head synthetic methanol reactor was successfully completed after five months of effort. It is China’s first such reactor of the DN3400 type. This core equipment of the 150,000 t/a methanol project of Hubei Sanning Chemical Co., Ltd. was designed by Nanjing Hao’an Technology Engineering Co., Ltd. and manufactured by Sichuan BlueStar Machinery Co., Ltd. It marks a breakthrough in China-developed combined-methanol-production process and contributes to increased output and reduced energy consumption for chemical enterprises.

The synthetic methanol reactor, made of diversified materials, is 13 meters in length, 3.4 meters in internal diameter, nearly 6 meters in external diameter and 60 millimeters in body thickness and weighs 167 tons. Compared to traditional medium- and high-pressure processes, the new process can be accomplished with 20% less investment. Every month, it increases methanol output by 300 tons, generates income of RMB1.8 million from byproduct steam, saves RMB80,000 worth of power and makes possible an overall income of RMB2.5 million. The investment will be paid back within six months.
Two SRDICI Projects Supported by MST

Xie Zhaoping

According to the results of the review of “2008 Special Funds for Technical Development and Research by Scientific Research Institutes” released by the Ministry of Science and Technology (MST), two projects declared by the Southwest Research & Design Institute of Chemical Industry (SRDICI), namely, “Produce synthetic natural gas from oven gas” and “R&D and industrialization of catalyst for sulfur-resisting deoxidation of coal-bed methane,” won approval and received funding of RMB1.87 million. Over the past five years, the institute has received government grants for eight projects.

The production of synthetic natural gas from oven gas is to convert most of CO and CO$_2$ gases in oven gas into CH$_4$ through methanation, getting products with methane concentration exceeding 90% through the PSA (pressure swing adsorption) gas separation technology and then recompressing to produce compressed natural gas (CNG) for vehicles. The project is targeted to develop an efficient and multifunctional catalyst for oven gas methanation to form complete technology for the process.

The keys to industrialization of a catalyst for sulfur-resistant deoxidation of coal-bed methane are: finding the formulas of catalysts and methods suitable for mass production; testing the activity and physical-chemical properties of the catalysts and the conditions for the process; preparing catalysts that can be used for industrialization purposes, experimenting on the catalysts’ life and determining the applicable conditions to industrialize a catalyst.

BRDIRI

Develops Key Equipment for Giant All-steel Tires

Fan Wenru Huang Xiangqian

The double-process forming machine for making 57”-63” giant all-steel radial tires, recently developed by the Beijing Research & Design Institute of Rubber Industry (BRDIRI), passed the appraisal organized by the China Petroleum and Chemical Industry Association (CPCIA), making China the fourth owner of this new technology for key equipment in the manufacture of 57”-63” giant all-steel engineering radial tires.

The appraisal committee consisted of a dozen experts from tire & rubber producers and tire & rubber machinery manufacturers. The experts pronounced the machine, which adopts the double-process forming technology and the concept of modular design, to be advanced in design, rational in layout and innovative. This world-class machine, which makes China independent of foreign technologies, is of great significance for the growth of the country’s giant all-steel engineering radial tires. To date, the machine has been put into operation in Fujian Hai’an Rubber Co., Ltd. and Shandong Shifeng Juxing Tire Co., Ltd., and has been used to manufacture a great many 40.00R57 and 37.00R57 engineering radial tires.

Jinan Yuxing

Finds New Solution to Treat Chromium Residue

Chen Shijie, Chu Yuhui

A new method of chromium residue treatment has been successfully developed by Jinan Yuxing Chemical Co., Ltd. The “wet detoxification” project has helped churn out 40,000 pieces of standard quality bricks made of chromium residue. According to test data, the strength and hexavalent chromium content of the bricks also meet national standards GB5101-2003 and GB18598-2001. This marks another big step for the company on its way towards “zero discharge” of pollutants.

The wet detoxification process is the key to reducing the toxins in the chromium residue, which is mixed with coal ash, coal gangues, sticky clays, etc. before being ground, shaped, dried and calcined into standard bricks. Bricks made with this new method pass tests, qualifying as solid clay bricks.

According to experts, China began research on the detoxification of chromium residues for the building industry in the 1980s. The initial success of Jinan Yuxing Chemical Co., Ltd., a flagship enterprise in China’s chromium salts sector, will contribute to land conservation and, more importantly, boost the sustainable development of the chromium industry. At present, it can use 150 tons of chromium residue to make 300,000 standard bricks every day. Further R&D results have made Jinan Yuxing decide to invest more capital in this project to enlarge production, and commercialization is foreseen within this year.
The "Gansu Provincial Polymer Mixing, Proportioning and Modification Packaged Technology and Equipment Engineering Technology Research Center," sponsored by the Tianhua Institute of Chemical Machinery & Automation, was established recently with the approval of the Gansu Provincial Science & Technology Department.

Tianhua Institute to Establish Engineering Technology Research Center In Gansu

Wei Zhihua

Tianhua Institute is China's first scientific research institute engaged in R&D for polymer mixing, proportioning and modification technology and equipment. It boasts an experienced R&D team and sound laboratory conditions. The institute has undertaken many key national scientific and technological projects and R&D projects for key equipment, assigned by Sinopec and the Ministry of Chemical Industry, and has developed dozens of new machine models, thus winning a number of national invention awards. In research and application of polymer reaction extrusion, the institute is world class and enjoys significant advantages in integrated R&D and engineering research of polymer modification equipment at home. The newly built technical research center will make full use of the technical strength and experimental conditions of Tianhua Institute. It will take advantage of the institute's multidisciplinary knowledge to join hands with domestic institutes, colleges and universities to provide comprehensive R&D services for the industry. This is of great significance to boost technical progress in plastics processing and improve China's engineering for polymer modification, taking it to a higher class.

Qingping Phosphate Mine Wins Honor for Quake Disaster Relief

Xie Zhaoping

Faced with the catastrophe, the management team of Qingping Phosphate Mine responded immediately and led all employees and their families in rescue efforts, saving 182 lives, a variety of materials, cash and a number of important documents. Benefiting from preparation of the mine's underground passages for geological disasters, almost all the 900 underground mining workers from 22 mines survived. Despite damaged roads, no water or power supply and no communication signals, after four days and five nights of continuous self-rescue, more than 3,000 employees and their family members were finally evacuated and transferred to a safer area.

"We are now going to make more efforts to restore mining operation as early as possible," Xiang Ping said after the conference.

Honghe Chemical Celebrates 50th Anniversary

Lan Bin, Luo Ming

On September 28th, Zigong Honghe Chemical Co., Ltd. ushered in the 50th anniversary of its founding. Since its establishment in 1958, the company has gradually assumed the duty of constructing China's general chemical industry so as to help push forward the development of fields including iron & steel, textiles, papermaking, glass, electronics, chemical industry, building materials and food additives. Over the past 50 years, Honghe Chemical has gradually grown from a simple producer of soda ash into a large chemical raw material maker. In aspects such as project development, equipment, technology and product R&D, it has played a leading role in China and reached international levels, with its gross industrial output value, sales revenue and profit frequently topping that of other enterprises in Sichuan. In the last decade, Honghe Chemical has developed by leaps and bounds, to be ranked among China's top 500 chemical enterprises and top 100 organic chemical material producers with an average annual increase of RMB300 million in output value. To date, the businesses of Southwest China Haohua Chemical Co., Ltd., the parent company of Honghe Chemical, have involved fields such as chemical raw materials, fine chemicals, pharmaceuticals and advanced chemical materials. While Honghe Chemical's soda ash, caustic soda and ammonium chloride were recognized as China Top Brands, its CraneTM was honored as a Famous Brand in China.