

ASIAN SPECIALTY CHEMICALS NEWSLETTER

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INTRODUCTION

We hope you find the *Asian Specialty Chemicals Newsletter* informative.

BDA is a corporate finance and advisory firm, which assists multinational clients to identify, assess and execute cross-border transactions involving Asia, including acquisitions, divestments, JVs and restructuring. We have offices and professional staff throughout Asia, and in the US and Europe.

If you think that BDA's services may be useful to you, please contact us at any one of our offices or email me at erellie@bdallc.com. Contact details for our offices are at the back of this newsletter. We look forward to speaking with you in the future.

Euan Rellie
Managing Director

CHINA

Albemarle Corp has signed an LOI with Nanjing Chemical Industry Park to build facilities in the park. The company will build a technology and repackaging centre in the first phase, to be completed in 2006. In the second phase, the company will build a polymer additives and flame retardants plant, to be completed in 2007. A wholly owned subsidiary, **Albemarle Chemicals Nanjing**, has been set up to operate the planned plants. (June 24, 2005)

Baling Petrochemical is considering building a 200,000 tpa polypropylene (PP) unit at Yueyang, Hunan, China. Baling has already sought approval from the Chinese government to expand its 2m tpa refinery, but the new PP capacity and start-up date depend on when approval is granted. The PP project will use propylene from the refinery. (August 15, 2005)

Columbian Chemicals has signed an option that allows the company to reserve land in the Shanghai Chemical Industry Park (SCIP) in Caojing, Shanghai, for its 100,000 tpa carbon black project. The feedstock could be sourced from **Shanghai Secco Petrochemical Co.** (July 1, 2005)

Degussa will start up its MMA and PMMA project in China in 2008, with downstream production facilities to follow in 2009. The proposed MMA and PMMA plants will have minimum capacities of 100,000 tpa and 40,000-50,000 tpa, respectively, costing Euro150m (US\$180m). (July 4, 2005)

Degussa formed a JV with **Yingkou Sanzheng Fine Chemicals (YSFC)** to manufacture cyanuric chloride (CYC) and derivatives. **Degussa** will hold a 65% stake in the JV, **Degussa Sanzheng (Yingkou) Fine Chemicals**. Liu Zhixun, principle shareholder and head of **YSFC**, will hold 35%. The new JV will operate primarily in the Asia region, once the approvals required are available from the relevant authorities. It will generate sales of EUR35m (US\$42m) with 650 employees. (July 20, 2005)

A **Dow** Center will be built at the Zhangjiang Hi-Tech Park in Shanghai. The center will include a R&D center and a global IT center, as well as other support and service facilities. The new Dow Center will occupy more than 65,000 m² and create 600 new jobs. (August 31, 2005)

Foshan Polyester plans to build a 120,000 tpa biaxially oriented polyethylene terephthalate (Bopet) chip plant. Start-up is slated for between late 2006 and 2007. The polyester producer, a subsidiary of **Yizheng Chemical Fibre Corp** and part of the **Sinopec** umbrella of companies, is conducting a feasibility study on the project, which is likely to be located next to the company 150,000 tpa PET unit in Foshan, in Guangdong. The existing plant produces 15,000 tpa of film-grade PET. The remainder is produced as bottle- and fibre-grade PET. (June 24, 2005)

Gas Authority of India Ltd. (GAIL) plans to invest in a coal-to-menthol-to-petchem plant in China's Shaanxi province. **GAIL** has agreed to enter into a MOU with **Shaanxi Huashan Chemical Industry Group** to carry out the feasibility study for setting up a coal gasification based petrochemical plant for production of polyolefin and other products in Shaanxi province. (September 6, 2005)

Jilin Chemical is bringing forward the start-up date of its cracker-expansion by about six months to 31 October, 2005. The company will be raising the cracker's capacity to 700,000 tpa from 380,000 tpa. The project in Jilin, China, includes a 380,000 tpa butadiene, toluene, and xylenes (BTX) unit and a 300,000 tpa high-density polyethylene (hdPE) unit. Part of the cracker's naphtha feedstock will come

from JCIC's 7m tpa refinery, while the rest will be sourced from PetroChina's network or obtained through imports. (September 5, 2005)

Lee Chang Yung Chemical Industry (LCY) has started building a US\$15m methyl isobutyl ketone (MIBK) plant in Zhenjiang, China. The plant, which is expected on-stream by Q3 2006, will use LCY technology. (September 12, 2005)

Metals & Arsenic Removal Technology, Inc. (MARTI), a portfolio company of **HydroFlo, Inc.**, recently announced a new contractual agreement with a major international plastics injection molding firm for production of MARTI pitcher and filtration units. These units will initially be manufactured in a highly automated, 100,000 m² facility located near Shanghai, in amounts of up to 1,200 pitchers and 4,000 filters daily. (September 7, 2005)

Mitsubishi Rayon Polymer Nantong Co. (Nantong), a wholly owned subsidiary of **Mitsubishi Rayon** began commercial mass production of acrylic resins for use in paints (3,500 tpa). Commercial mass production of acrylic resin sheets (20,000 tpa) commenced on July 1, 2005. The start-up of **Nantong** will enable shortened delivery times and a quicker response to changes in market needs. **Mitsubishi Rayon** invested US\$28m in the subsidiary. (June 1, 2005)

Mitsui Takeda Chemicals, Inc. (MTCI), a JV between **Mitsui Chemicals (MCI)** and **Takeda Chemical Industries (Takeda)**, has agreed with the current JV partners to increase its stake in **Tianjin Cosmo Polyurethane Co (TCPC)** thus converting it to a consolidated subsidiary in H2 2005, with the stake increase of 45% to 70%. The new facilities will start commercial operation in Q2 2006, with capacity of 17,000 tpa, for the main application of PU resins for coatings, paints, and flexible packaging adhesives. (September 9, 2005)

Ningxia GeoMaxima Fengyou Chemical has pushed back the start-up of its ammonia and urea project in Yinchuan, Ningxia, China from mid-2006 to H1 2007. The company has increased the project's capacities to 440,000 tpa of ammonia and 760,000 tpa of urea. (August 17, 2005)

NOVA Chemicals Corporation has entered into a long-term agreement with **Loyal Chemical Industrial Corporation** to manufacture ARCEL[®] moldable foam resin near Shanghai. This agreement is a component of NOVA Chemicals' plan to expand manufacturing capacity for ARCEL[®], an expandable inter-polymer, to 45,000 tpa by the end-2006. (September 6, 2005)

Shenhua Group has received approval from the central government of China for a second coal-to-olefins project located at Batou, Inner Mongolia. The project includes: a 1.8m tpa coal-based methanol plant and a methanol-to-olefins (MTO) unit, which would produce 600,000 tpa of olefins; a 100MW thermal power station; and facilities for 300,000 tpa polyethylene and 310,000 tpa polypropylene. Construction work will take three to five years to complete. Hong Kong's **Kerry Group** and Shanghai-listed **Baotou Tomorrow Technology Co** are potential partners for the project. (August 16, 2005)

Shenyang Coal Industry Group is planning to build a 1.8m tpa methanol production base in three phases at a proposed chemical park in Shenyang, Liaoning, China. A 600,000 tpa methanol unit, a 300,000 tpa acetic acid unit, a 100,000 tpa dimethyl ether unit, and a 200,000 kW power station have been planned in the first phase. Construction work is expected to start by July 2006, with the project scheduled to come onstream by 2009. In the second phase, which would start up after 2010, the company would use methanol to produce olefins. (September 12, 2005)

Yantai Wanhua Polyurethanes will start construction work on its 30,000 tpa paraformaldehyde project in Zhejiang province, China, at end-2005. The unit, which will be located at the Ningbo Daxie Development Zone, is scheduled to come onstream by end-2006 or in early 2007. Feedstock will be sourced from the company's 120,000 tpa formaldehyde unit at the same site. (August 15, 2005)

Yisheng Petrochemical could take over a 500,000 tpa qualified terephthalic acid (QTA) project in Dalian, China. The project was mooted as a JV between

Heilongjiang Longdi and the **Dahua Group**, but the former pulled out recently due to financial constraints. The project has been approved by the government but no start-up date has been set. (September 9, 2005)

INDIA

Filatex India plans to produce polyester chips for its partially oriented yarn (POY) plant to improve cost competitiveness, said a company official. It will set up a polycondensation plant with a continuous spinning facility to produce polyester chips for its 49,700 tpa POY plant in Dadra & Nagar Haveli, India. The company's board has approved the project. Details such as the capacity, location, and funding should be settled within three years. (September 1, 2005)

Gujarat Fluorochemicals Ltd (GFL) has decided to invest Rs4bn (US\$90m) in a complex in Dahej, Gujarat, India, to expand the company's shrinking product portfolio. The complex will consist of a 52,500 tpa caustic soda unit, a 41,500 tpa chloromethane plant, a 5,500 tpa polytetrafluoroethane facility, and a 30MW power plant for captive use. All the units are expected to be commissioned in 2006. The company currently produces 19,000 tpa of chlorofluorocarbons (CFCs) and 9,000 tpa of hydrofluoric acid in Ranjithnagar. **Reliance** Could bid US\$5bn-US\$6bn for **Innovene, BP's** olefins and derivatives unit. To date, **Reliance's** major acquisitions in India include **Indian Petrochemicals Corp Ltd (IPCL), National Organic Chemicals Industries (Nocil), SM Dyechem**, and a number of small polyester producers. Internationally, it acquired German polyester maker **Trevira** in 2004, and may buy Australia's **Qenos** and South Korea's **KP Chemical**. (August 29, 2005)

Supreme Petrochem Ltd (SPL) will complete an expansion of its polystyrene (PS) capacity in the

fourth quarter of this year from 204,000 tpa to 272,000 tpa, while a new expandable PS line will be completed by end-2006. **SPL** operates three general-purpose PS and high-impact PS lines in Raigad, Maharashtra, India. It also operates a 17,000 tpa compounding and specialty-grade PS unit at the same location. The EPS line, which would also be located in Raigad, was likely to have a capacity of 60,000 tpa. (July 22, 2005)

transferred its nylon business to the JV in 2000. The company's patent rights and research and development facilities were included in the transferred assets. With the dissolution, it would withdraw completely from the specialty nylon business. (June 21, 2005)

JAPAN

Akzo Nobel Base Chemicals and **Asahi Kasei Chemicals** have signed a collaboration agreement for membrane process technology and ion-exchange membranes. The agreement will last until at least 2010. Under the agreement, **Akzo Nobel's** new chlorine plant in Delfzijl, the Netherlands, will use Asahi's zero-gap technology and membranes. (July 22, 2005)

Mitsui Chemicals will acquire full control of its 50:50 JV methyl methacrylate monomer (MMA) production facility from **Kuraray** for an undisclosed sum. (July 19, 2005)

Mitsui also announced that it has begun marketing a high-performance photocatalytic substance. The company, which has already commercialized polymer production catalysts, will bring to market the photocatalyzer in 2006. The photocatalyzer has higher photolytic capability and sorbability than conventional photocatalyzers, so it can decompose and eliminate harmful agents and odors. **Mitsui** is aiming for sales of ¥2.5bn (\$22m) in fiscal 2011. (September 9, 2005)

Showa Denko and Switzerland's **Ems-Chemie** have announced plans to dissolve their nylon JV, **EC-Showa Denko**, in accordance with an agreement signed in 2000. The JV is 70% owned by **Ems-Chemie** and 30% by **Showa**. **Showa**

KOREA

Dow Chemical acquired the 20% of **Pacific Epoxy** it did not already own from **Saehan Industries** for an undisclosed sum. The company purchased 80% of **Pacific Epoxy** in January 2001. With the transaction, it becomes full owner of **Pacific Epoxy's** 30,000 tpa converted epoxy resin plant in Gumi, South Korea. (June 22, 2005)

Johnson Matthey signed a MOU with local representatives to secure a greenfield site in South Korea for building a plant to manufacture emission control catalysts for diesel and petrol vehicles. The new facility will also carry out R&D activities and will include vehicle and engine emission test capabilities to support the Korean motor industry. (September 9, 2005)

LG-Dow Polycarbonate will start construction work on its second polycarbonate (PC) train in South Korea. The project could come onstream less than two years after the start of construction as the infrastructure was already in place. Its first line started up in July 2001. The new line would double the company's PC capacity to 130,000 tpa. (September 9, 2005)

Samyang Corp plans to debottleneck its PC plant at Jeonju, South Korea, during a month-long

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turnaround in October. It would raise the plant's capacity by 15,000 tpa to 100,000 tpa. The plant is a 50:50 JV between Samyang and Japan's Mitsubishi Engineering Plastics. (August 26, 2005)

Sovereign Asset Management has sold its 14.82% stake in **SK Corp**, citing difficulties in getting the company's board to implement 'internationally recognized standards of corporate governance'. Sovereign, which had been SK's single-largest investor since April 2003, sold its stake for around Won1,000bn (US\$960m) to foreign investment companies, achieving a capital gain of about Won800bn (US\$770m). (July 18, 2005)

involves doubling **Pertamina's** propylene capacity to 400,000 tpa by installing an OCU, based on technology from **ABB Lummus**, and revamping a residue catalyst cracker at the Balongan refinery. Each unit would yield 100,000 tpa of propylene. (September 5, 2005)

Petron Corp plans to build a fluid catalytic cracking (FCC) unit at its refinery in the Philippines, which would yield 140,000 tpa of propylene. It also plans to double its mixed xylenes capacity and add a BTX extraction plant. The planned FCC unit would replace a 40-year old deep catalytic cracking (DCC) plant. (August 15, 2005)

MALAYSIA / INDONESIA / PHILIPPINES

Goodyear Tire and Rubber sold its 95% stake in **Goodyear Sumatra Plantations (GSP)**, an Indonesian rubber plantation to **Bridgestone Corporation** for US\$62m. Ohio-based **Goodyear** said the divestment is 'consistent' with its strategy to focus on its core business. (August 9, 2005)

BASF has established a regional service center in Kuala Lumpur, Malaysia. The new company, known as **BASF Asia Pacific Service Centre Sdn Bhd**, will provide support services in finance and accounting, information technology and systems, and human resources to **BASF** subsidiaries and affiliates in 15 countries in the Asia Pacific region. **BASF** will invest over EUR21m (US\$26m) to set up the operating unit. (August 23, 2005)

Pertamina's propylene expansion project in Balongan, Indonesia, has been delayed by a year to H1 2008. The state-owned company postponed completion owing to a delay in selecting technology for a new olefins conversion unit (OCU). The project

SINGAPORE

Acrylic Acid (SAA) increased capacity at its Jurong Island acrylic acid plant from 13,000 tpa to 73,000 tpa. The plant is a JV between **Nippon Shokubai** (51%), **Toagosei** (40%) and **Sumitomo Chemical** (9%). It supplies feedstock to **Toagosei Singapore's** acrylates unit, which can produce 60,000 tpa of butyl acrylate (BA) and 22,000 tpa of ethyl acrylate (EA) and methyl acrylate (MA). (August 15, 2005)

Mitsubishi Rayon Co (MRC) has agreed with **Lucite International** to build two new factories to produce methyl methacrylate monomers. Under the agreement, **MRC** will build a factory in Texas, US, by the end of 2009 to make 140,000 tpa of methyl methacrylate and methacrylic acid. The accord also calls for Lucite to build a plant in Singapore, by the end of 2007, to manufacture 120,000 tpa of MMA. The two companies will consider making the two factories into a formal JV. (June 17, 2005)

TAIWAN

Praxair Chemax Semiconductor Materials, a JV between **Praxair**, and **China Petrochemical Development**, has announced the opening of an operations center located in southern Taiwan. The facility located near the Tainan Science Park will offer technical support as well as just-in-time delivery of such products as silane, ammonia, phosphine, arsine, and nitrogen trifluoride. (September 8, 2005)

Rohm and Haas Electronic Materials, CMP Technologies, announced that it will invest US\$50m to build a pad manufacturing plant and technology center at the Chunan Science Park in Taiwan. The new manufacturing and technical Center will encompass next-generation IC1000™ polishing pad production, an applications lab and sales and customer support offices. The facility is expected to be in commercial production by Q1 2007. (August 24, 2005)

THAILAND

PTT Polyethylene has selected **Basell's** Lupotech T technology for its planned 300,000 tpa low-density polyethylene (ldPE) plant in Mab Ta Phut, Rayong, Thailand. Start-up of the planned unit is expected in late 2008. (July 27, 2005)

The **Thai government** is planning a pipeline from the Gulf of Thailand to Phang Nga province in the southeast. Oil tankers from the Middle East would berth on the Andaman Sea coast, where a refinery is being planned. It is also planning a naphtha cracker complex. The targeted start-up date for the pipeline is 2012, the refinery 2013, and the cracker complex 2014-15. (September 2, 2005)

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ABOUT BDA

Business Development Asia is a corporate finance advisory firm which assists multinational companies in expanding their businesses in Asia through JVs, acquisitions and divestments. For further information on BDA's services or on any of the articles in this newsletter, please contact our offices below.

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