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Shintech Investing \$1.49-BN at Plaquemine For Chlor-Alkali/VCM Plant, PVC Increase

Houston—

Shintech Louisiana, a subsidiary of Shin-Etsu Chemical, announced it is investing \$1.49-billion to develop a new chlor-alkali and vinyl chloride monomer (VCM) production facility, and expand existing polyvinyl chloride (PVC) manufacturing units at its site in Plaquemine, La.

The project involves construction of a plant capable of producing 860,000 t/y of VCM and 660,000 t/y of caustic soda, and development of an integrated PVC manufacturing facility.

Construction has already begun on the first phase of the project, which will increase PVC production capacity by 290,000 t/y to 3.24-million t/y and caustic soda capacity by 270,000 t/y to 1.57-million t/y. Completion is expected by the end of 2020 and operations are planned in early 2021.

Between 2,000 and 3,000 jobs are expected to be generated during the construction of the project and 120 new direct jobs once completed.

The company is currently building an ethylene plant at Plaquemine, Shin-Etsu noted without providing details.

In 2015, Shintech announced it was proceeding with construction of a new 500,000-t/y ethylene unit, which was planned to be completed in the first half of 2018 (PCN, 27 Apr 2015, p 1).

LG Chem to Invest \$2.4-Bn to Expand Its NCC and PO Facility in S. Korea

*Seoul—*LG Chem

is planning to spend \$2.4-billion to expand its naphtha cracking center (NCC) and polyolefin (PO) plant in Yeosu, South Korea.

The project, which will expand the NCC and PO facility by 800,000 t/y each, is expected to be completed in the second half of 2021.

Also, as part of the investment, the company said it will build a mass production complex in Dangjin, Chungnam Province, for "future promising materials," such as super insulation, light weight and high strength materials.

The expanded NCC will increase LG Chem's ethylene production capacity to 3.3-million t/y, making it the "largest" ethylene producer in Korea, the company noted.

MOC Awards Services Contract to Toyo For Map Ta Phut Olefins Expansion

*Rayong—*Map Ta

Phut Olefins Co. (MOC), a joint venture of Dow Chemical and SCG Chemicals, has awarded an offshore detailed engineering and procurement services contract to Toyo Engineering for an olefins expansion project in Map Ta Phut, Rayong, Thailand.

The project, to be built adjacent to MOC's existing olefins plant, will increase production capacity by 350,000 t/y. Completion is scheduled for 2021.

MOC currently has a production capacity of 900,000 t/y of ethylene and 800,000 t/y of propylene.

ExxonMobil Begins Operations in Baytown At New 1.5-Million-T/Y Ethane Cracker

Houston—

ExxonMobil announced the start of operations at its new 1.5-million-t/y ethane cracker at the company's integrated Baytown chemical and refining complex in Texas (PCN, 12 Feb 2018, p 1).

The cracker will provide ethylene feedstock to two new 650,000-t/y polyethylene lines at ExxonMobil's Mont Belvieu, Texas, site, which began production in the fall of 2017.

"Together, the Baytown ethane cracker and Mont Belvieu plant represent ExxonMobil's largest chemical investment in the U.S. to date," the company noted.

The two projects have created over 10,000 construction jobs, 4,000 jobs in nearby communities and 350 permanent positions.

Jiangsu Jiarui Chooses Oleflex Process To Produce Polymer-Grade Propylene

Taixing—

Jiangsu Jiarui Chemical Co. has selected Honeywell UOP's C3 Oleflex technology to produce 450,000 t/y of polymer-grade propylene at its plant in Taixing Industrial Zone, Jiangsu Province, China.

Honeywell will provide licensing, the process design package, proprietary and non-proprietary equipment, on-site operator training, technical services for start-up and continuing operation, and catalysts and adsorbents.

"Historically, propylene has been produced as a by-product of making ethylene from petroleum, but with the influx of lighter feedstocks, the amount of propylene from these manufacturing processes is dramatically reduced," noted Honeywell UOP President John Gugel.

"The Oleflex process addresses the growing propylene supply gap by producing on-purpose propylene from propane, which is in abundant supply."

Birla Carbon Announces Several Projects To Boost Global Carbon Black Capacity

Mumbai—

Birla Carbon said it will increase its carbon black production capacity by 150,000 t/y over the next 18 months with expansions in multiple regions.

Specifically, it will raise carbon black capacities in Egypt and Italy before the end of the third quarter of 2018 through "significant" debottlenecking.

In Asia, the company will restart a production line in Thailand by the end of the fourth quarter of this year, and will install new production lines in India, which are planned to start up in the fourth quarter of 2019.

In addition, Birla Carbon is prepared to expand production by 120,000 t/y at its newest plant in China at the "opportunity" time.

"Implementation of these projects is underway after a series of development initiatives were identified to meet market requirements," noted Birla Carbon Chief Executive Dr. Santrupt Misra.

Socar Commissions Sumgait PP Plant; HDPE Unit to Start Up in Late 2018

Sumgait—Socar Polymer has opened its new 180,000-t/y polypropylene (PP) unit at the Sumgait Chemical Industrial Park in Azerbaijan (PCN, 5 Mar 2018, p 1).

The project, developed by Maire Tecnimont Group, also includes a new 120,000-t/y high-density polyethylene (HDPE) plant, which is currently under completion and scheduled to be commissioned in the fourth quarter of this year.

In addition, PCN recently reported that construction work on a new 1,200-t/d ammonia and 2,000-t/d urea facility is in the completion stage and ammonia production is expected to begin this August.

Maire Tecnimont's scope of work involved engineering, procurement and construction activities up to start-up.

"The industrial complex will enable Azerbaijan to develop the petrochemical value chain and produce semi-finished plastic products for the first time on a large scale, boosting the national manufacturing industry and the Azeri economy as a whole," Maire Tecnimont noted.

Advisian Awarded Pre-FEED Contract For New Borouge 4 Expansion Project

Ruwais—Advisian, the global consulting firm of WorleyParsons, has been awarded the pre-FEED (front-end engineering design) contract for Borouge 4, a project to expand Borouge's petrochemical facility in Abu Dhabi, United Arab Emirates (PCN, 24 July 2017, p 1).

The planned Borouge 4 complex involves the "world's largest" single train, mixed-feed cracker and associated petrochemical derivatives, Advisian noted.

Borouge, a joint venture of Abu Dhabi National Oil Co. (ADNOC) and Borealis, last year said the project would be integrated with ADNOC's Takreer refinery and was estimated to come on stream around 2023.

As part of Advisian's scope of work, it will be responsible for licensor evaluation.

Praxair Enters Long-Term Agreement To Supply US Methanol with Oxygen

Institute—Praxair has signed a long-term agreement to supply oxygen to US Methanol's new methanol facility in Institute, W. Va. (PCN, 11 Sept 2017, p 3).

The facility, known as Liberty One, was relocated from Brazil and is undergoing major upgrades, repairs and modifications to increase the efficiency and life span of the plant.

Liberty One is planned to have an initial production capacity of 200,000 t/y, which can later be expanded to 350,000 t/y. Operations were originally scheduled to begin on 1 July 2017; however, according to the company's website, production will now begin in the fourth quarter of next year.

As part of the agreement, Praxair will build a vacuum pressure swing adsorption plant that is expected to start up in 2019.

In addition to Liberty One, US Methanol is also in the early developmental stages of a 150,000-t/y methanol facility, to be known as Liberty Two, which will be relocated from Europe to West Virginia.

BASF Plans Expansion Project in Antwerp For Integrated EO Plant at Verbund Site

Antwerp—BASF intends to implement a "significant" capacity expansion project at its integrated ethylene oxide (EO) complex at its Verbund site in Antwerp, Belgium.

The project, on which a final investment decision is expected to be made in 2019, includes capacity expansions for EO and several downstream derivatives, such as surfactants.

BASF said it plans to further strengthen its backward integration into EO to support continued growth of its customers in downstream markets.

The company operates EO plants in Antwerp and Ludwigshafen, Germany, with a combined capacity of 845,000 t/y.

CAP Completes Butadiene Expansion At Integrated Complex in Indonesia

Cilegon—Chandra Asri Petrochemical (CAP), through its Petrokimia Butadiene Indonesia subsidiary, has completed a butadiene expansion project at its integrated naphtha cracking complex in Cilegon, Banten, Indonesia.

The expansion, based on BASF/butadiene extraction technology, increased butadiene capacity to 137,000 t/y from 100,000 t/y (PCN, 30 Jan 2017, p 1).

Lummus Technology was responsible for the license and basic engineering design of the project, while Toyo Engineering Korea and Inti Karya Persada Teknik carried out the engineering, procurement and construction.

People on the Move

LyondellBasell—*Jacques Aigrain*, currently vice chairman of the board of directors, has been appointed chairman to succeed *Robert G. Gwin*, effective 24 Sept. 2018.

James (Jim) Guilfoyle, most recently senior vice president for global intermediates and derivatives and global supply chain, has been named executive vice president, advanced polymer solutions and global supply chain.

Lanxess—*Neelanjan Banerjee* has been named country representative and managing director for India, effective 1 Sept. 2018, in addition to his current role as head of the Advanced Industrial Intermediates Business Unit. He will replace *Jacques Perez*, who will become managing director of Lanxess Holding UK and country representative of Lanxess in the UK.

The Plaza Group—*Thaisla (Thai) Courtney*, most recently manager of customer service and logistics, has been appointed director of operations.

Wood—*Darren Martin* has joined the company in the newly created position of chief technology officer in order to help the company redefine its digital offering. He previously led a range of strategic growth initiatives at a "world leading" independent end-to-end IT services and solution company, Wood noted.

AltaGas—*David Harris* has resigned from his position as president and chief executive, effective immediately, due to a complaint under review by the board. *David Cornhill*, founder and chairman of AltaGas, and *Phillip Knoll*, a board member, will act as interim co-chief executives until a replacement is found. A search is already underway.

HPCL-Mittal Awards Contract to L&T For Indian Mixed Feed Ethylene Unit

Mumbai—

HPCL-Mittal Energy has awarded a contract to L&T Hydrocarbon Engineering to set up seven cracker furnaces of a new mixed feed ethylene plant at HPCL-Mittal's Bathinda refinery in Punjab, India (PCN, 6 Nov 2017, p 1).

The 1.2-million-t/y ethylene facility will be capable of being expanded to 1.5-million t/y. Value of the contract and a schedule for the project was not given.

L&T's scope of work involves project management, residual engineering, procurement and supply of cracker furnace systems, components, auxiliaries, fabrication in modules, erection, construction and commissioning.

McDermott to Provide Storage Tanks For JUPC's EO/EG Facility at Jubail

Jubail—

McDermott has been awarded a contract from Samsung Engineering Saudi Arabia to supply CB&I storage tanks for Jubail United Petrochemical Co.'s (JUPC) ethylene oxide (EO)/ethylene glycol (EG) plant in Jubail, Saudi Arabia.

Under the fixed lump-sum contract, valued at between \$1-million and \$50-million, McDermott will be responsible for the engineering, procurement and fabrication of 23 CB&I storage tanks and modification of two existing tanks. Work is expected to begin immediately.

CB&I storage tanks are part of McDermott's expanded offering following the combination with CB&I this past May (PCN, 14 May 2018, p 4).

Saudi Aramco Responds to Media Rumors About Its Interest in Buying SABIC Stake

Dhahran—

Saudi Aramco, in response to media speculation regarding its possible interest in purchasing an ownership stake in SABIC, said it is engaged in "very early-stage" discussions with the Public Investment Fund about acquiring a strategic interest in SABIC through a private transaction.

"These discussions are preliminary and there is no certainty that any such transaction will take place," Aramco said, noting that it has no plans to acquire any publicly held shares of SABIC.

If further announcements are appropriate, they will be made in compliance with applicable regulations, Aramco added.

Praxair Opens Two New Chinese ASUs To Supply Industrial Gases to CNOOC

Huizhou—

Praxair has started up two new air separation units (ASUs) in China to supply China National Offshore Oil Corp. (CNOOC) with oxygen and nitrogen for its refinery expansion and related downstream chemical production (PCN, 4 May 2015, p 1).

The plants, each with 2,400 t/d of oxygen capacity, are located in the Huizhou Daya Bay Chemical Industrial Park in Guangdong. They are serving a total of nine customers.

"This project not only expands our relationship with CNOOC, but also enables us to build density and increase supply reliability to all of our valued customers in the park and throughout southern China," noted Will Li, president of Praxair China.

Celanese, Chengzhi Sign Letter of Intent For Acetic Acid-Based Ethanol in China

Beijing—

Celanese has signed a Letter of Intent (LOI) with Chengzhi Shareholding to further the development of acetic acid-based ethanol as a clean energy source in China.

From 2014 to 2017, Celanese operated a 275,000-t/y industrial ethanol unit in Nanjing, China. The unit used Celanese's TCX technology to produce ethanol and historically sourced feedstock from the company's acetic acid plant co-located at the facility.

Pursuant to the LOI, Celanese would sell the ethanol unit to Chengzhi, along with all related assets, including equipment, storage tanks and pipelines and all necessary land rights and permits. In addition, Celanese would contribute its TCX technology, along with all associated patents, into a newly formed joint venture.

Through the joint venture, the parties would collaborate to further strengthen the technology and promote additional opportunities for utilizing it within China.

The companies said they are committed to working together to implement a smooth transition leading to the restart of the ethanol unit as soon as possible, likely in 2019. The LOI is subject to definitive agreements.

Oxea Starts Up Propanol 2 Plant in Texas

Dallas—

Oxea said it has successfully started up a "world-scale" propanol production unit (Propanol 2) at its Bay City, Texas, site (PCN, 28 May 2018, p 1).

The "state-of-the-art" facility, based on Oxea's advanced proprietary process technology, has a nameplate capacity of 100,000 t/y of n-propanol and is fully operational.

"The new unit has been one of our largest investment projects in the past years," noted Oxea Chief Executive Dr. Salim Al Huthaili.

NEO Group Launches Third PET Line

Rimkai—

NEO Group has begun operations at its third polyethylene terephthalate (PET) granules production line in the Klaipeda Free Economic Zone, Lithuania.

The new €50-million line increases PET production capacity by 50% to 500,000 t/y.

"Already we are one of the largest suppliers throughout the European market," noted Paulius Ambrazaitis, chairman of the board. "The new production lines will further strengthen our position and we will be ready to meet the ever-growing needs of the EU market."

Sipchem to Raise IGC Stake to 97%

Jubail—

Saudi International Petrochemical Co. (Sipchem) has signed an agreement with National Power Co. (NPC) to acquire NPC's 25% interest in International Gases Co. (IGC), an affiliate of Sipchem, raising Sipchem's stake to 97% from 72% currently.

The parties are working together to conclude the necessary conditions to complete the transaction and plan to have done so "within the next few weeks," Sipchem noted.

The transaction is subject to approval of the concerned authorities and other parties, and the annual general assembly.

Borealis to Purchase 100% of Ecoplast, An Austrian Plastics Recycling Firm*Wildon—*

Borealis has signed an agreement to acquire 100% of the shares in Ecoplast Kunststoffrecycling GmbH, a plastics recycler based in Wildon, Austria.

Ecoplast processes approximately 35,000 t/y of post-consumer plastic waste from households and industrial consumers into "high-quality" low-density and high-density polyethylene recyclates.

"It is a logical next step for us to expand our mechanical recycling capabilities, which are key to our sustainability and circular economy efforts," noted Borealis Chief Executive Alfred Stern. "Borealis wants to be a provider for circular economy plastic solutions and we see Ecoplast as an important complement to mtm in Germany."

Methanex Secures Natural Gas Supply For Its Operations in New Zealand*Vancouver—*

Methanex has entered into long-term agreements that are expected to supply natural gas to support over half of its 2.4-million t/y of capacity in New Zealand for a period of 11 years through 2029.

The new agreements, for which a value was not disclosed, will combine with contracts from other natural gas producers to supply the local plants.

"Our New Zealand facilities are ideally located to supply the growing Asia-Pacific market," noted Methanex President and Chief Executive John Floren.

AkzoNobel Finalizes Accord to Acquire Organic Peroxides Producer Polinox*São Paulo—*

AkzoNobel Specialty Chemicals has concluded an agreement to acquire Polinox, an organic peroxides producer in Itupeva, Brazil.

The acquisition, expected to close in the fourth quarter of this year, will expand AkzoNobel's footprint in South America and establish it as one of the region's leading producers of curing systems for polyester thermoset resins, AkzoNobel noted.

The sale includes Polinox's brands and trademarks, which include Brasnox, Perbenzox and TecnoxSuper, as well as its customer list and production know-how.

AkzoNobel plans to add capacity at its own site at Itupeva and transfer manufacturing there after the expansion is completed.

Linde Concludes Agreement with Messer, CVC For Majority of Gases Business in N. Amer.*Munich—*

Linde has finalized an agreement with a consortium comprising Messer Group and funds advised by CVC to acquire the majority of Linde's gases business in North America and certain business activities in South America (PCN, 16-23 July 2018, p 3).

The joint venture between Messer and CVC Fund VII will be named MG Industries and will operate under the Messer brand. Messer will contribute its Western European operating companies to the joint venture.

The transaction is subject to completion of the planned merger of Linde and Praxair, and approval by relevant authorities.

Linde and Praxair expect to complete the business combination in the second half of 2018, following the timely receipt of all required approvals.

KKR Consortium Enters into Agreement To Acquire Majority Stake in LCY Chem*Taipei—*

Global investment firm KKR and LCY Chemical have signed a share exchange agreement for a consortium led by KKR to acquire all of the issued and outstanding shares of LCY for NT\$56 per share in cash.

The transaction, which has been unanimously approved by the board of directors of LCY, will give KKR a majority and controlling interest in LCY. The existing management team will continue to lead the company with support from KKR.

Subject to customary closing conditions and regulatory approvals, the transaction is expected to close in the fourth quarter of this year.

LCY is a specialty chemicals producer focused on thermoplastic elastomers and performance plastics. It is headquartered in Taipei, Taiwan.

Sasol Gives Update on New LCCP*Lake Charles—*

Sasol plans to start up the first three units of its Lake Charles Chemical Project (LCCP) in Lake Charles, La., by the end of this year with the remaining units expected to be commissioned in 2019 (PCN, 19 Mar 2018, p 4).

The estimated \$11-billion LCCP, located adjacent to Sasol's existing chemical operations, includes a 1.5-million-t/y ethane cracker and downstream production of low- and linear low-density polyethylene, ethylene oxide and ethylene glycol.



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