

## WR Grace as licensor for an Indian company

WR Grace will provide its Unipol processing technology to Bharat Petroleum (BPCL) for use in a 450,000 tonne/y polypropylene manufacturing facility in Rasayani, India. BPCL has announced its intention to construct a \$3.48 bn petrochemical complex in Rasayani, 50 km from the Mumbai 12 M tonnes/y refinery, which will supply the raw material. The project will involve the replacement of an old fluidized catalytic cracking (FCC) unit producing propylene and the construction of a downstream PP unit. BPCL will then build a steam cracker.

Original Source: Chimie Pharma Hebdo, 22 JUL 2020 (Website: <http://www.industrie.com/chimie>) © ETAI Information 2019.

## NEW PLANTS

### Chinese operator starts up world's largest single-train methanol plant

Ningxia Baofeng Energy Group Co Ltd (Baofeng Energy) has commissioned the world's largest single-train methanol plant as part of its new 600,000-tonnes/y coal-to-olefins (CTO) complex at Ningdong Energy Chemical Base in Yinchuan City, Ningxia Province, China. Designed by and equipped with proprietary DAVY process technology and catalysts from Johnson Matthey, the plant uses a feedstock of coal-derived synthesis gas (syngas) to produce 2.2 M tonnes/y of stabilized methanol, which Baofeng Energy uses for production of olefins in a downstream unit, Johnson Matthey said. Startup of the plant follows the operator's 2017 award to Johnson Matthey, the scope of which included delivery of licensing for the methanol synthesis plant flowsheet, associated engineering, technical review, commissioning assistance, and catalyst supply. Johnson Matthey previously provided licensing and design for a previous unit Baofeng Energy commissioned in 2014, the service provider said. With the new methanol plant now operating at full rates, Baofeng Energy's Ningdong chemical complex is now capable of producing 4 M tonnes/y of methanol, 1.2 M tonnes/y of olefins, 4 M tonnes/y of coke, and 780,000 tonnes/y of specialty chemicals from coal-derived feedstock. With instrumentation installation assistance from Shanghai Chenzhu Instrument Co Ltd (Chenzhu) Baofeng Energy first started up its new plant's methanol synthesis tower-which was designed by China Chengda Engineering Co Ltd (Chengda) using Johnson Matthey's DAVY technology and manufactured by Dongfang Boiler Co Ltd-and associated 105,000-cu m/hr air separation unit on 29 May 2020, according to separate releases from Chenzhu and Chengda. Baofeng Energy-which scaled back methanol production capacity to 2.2 M tonnes/y from an originally planned 2.6 M tonnes/y in 2018- invested Yuan 15.28 bn to complete both the new methanol plant and CTO complex, the latter of which first entered production in Oct 2019, according to a 15 Nov 2018, release from Baofeng Energy and reports from Chinese local media. In late 2019, Baofeng Energy announced the release of an environmental impact assessment for a project that would involve construction of a newly proposed 500,000-tonnes/y CTO complex at Ningdong, which would also include a new 1.5-M tonnes/y methanol plant, according to a 3 Dec 2019, release from the operator.

Original Source: PennWell Corporation, 2 JUL 2020 (Website: <http://www.ogj.com/index.html>) © Pennwell Corporation 2020.

## Johnson Matthey awarded 3000 mtpd methanol technology contract for Russia Amur Oblast facility

Johnson Matthey (JM), a global leader in sustainable technologies, is pleased to announce that its combined reforming methanol technology has been selected by JSC Technoleasing for the new Amur Oblast facility, located in Skovorodino, Russia. JM will provide a licence for the 3000 mtpd plant and will include their new Advanced Series Loop technology, which utilizes an innovative synthesis loop arrangement together with existing reactor technology to achieve a significant improvement in natural gas efficiency. The contract also includes the associated engineering, proprietary equipment and catalyst supply. Pending a final investment decision (FID) by Technoleasing, this will be the first JM licensed methanol plant in Russia using the combined reforming and Advanced Series Loop technology. It represents JM's commitment to providing its world class expertise and sustainable technologies to Russia's growing petrochemical industry.

Original Source: Johnson Matthey, 17 JUL 2020 (Website: <http://www.matthey.com>) © Johnson Matthey plc 2020.

### Grace doubles LUDOX colloidal silica capacity

W R Grace & Co has announced the commissioning of its new 8200 sq m colloidal silica facility at its European flagship production and R&D complex in Worms, Germany. The factory expands the global manufacturing capacity of LUDOX, Grace's key colloidal silica product, by 100% and substantially improves Grace's responsiveness to clients in Europe, the Middle East and Africa, (EMEA) and Asia Pacific. This will allow the company to continue to meet expanding international demand in a speciality silica segment. The new factory extends Grace's production centre in Worms by adding nearly 25 new high-tech manufacturing jobs bringing employment at the facility to around 950. The new factory also enables the company to further improve its wide range of products and will boost Worms as a cornerstone of services in its Refining Technologies, Materials Technologies and Specialty Catalysts operating segments.

Original Source: Coatings Today, 10 MAY 2020 (Website: <http://www.paint.org>) © American Coatings Association 2020.

### Hengli starts up Stratco alkylation unit at its new refinery complex in China

DuPont Clean Technologies announced the "successful" start-up and performance test of a new Stratco alkylation unit at Hengli Petrochemical's refinery complex in Changxing Island Harbor Industrial Zone, China. Licensed by DuPont, the 300,000 tonnes/y unit enables Hengli to produce high-quality alkylate from a 100% isobutylene feed stream. It uses the latest innovative patented XP2 technology by DuPont in the Stratco Contactor reactor. The Stratco alkylation technology is a sulfuric acid, catalyzed process that converts low-value, straight-chain olefins into high-value, alkylate.

Original Source: Petrochemical News, 29 JUL 2020 (Website: <http://www.petrochemical-news.com>) © William F. Bland Co. 2020.

### Dangote advances construction of Lekki integrated refining complex

Nigerian conglomerate Dangote Industries Ltd (Dangote Group) subsidiary Dangote Oil Refining Co

is proceeding with installation of key equipment at its long-planned 650,000-b/d grassroots integrated refining and petrochemical complex now under construction in southwestern Nigeria's Lekki Free Trade Zone. Sulzer Chemtech Ltd the sole supplier of column internals, packings, and trays for the project has completed design and supply of internals for all of the refinery's columns, which contractors are now currently installing at the site under guidance of Sulzer's engineers, the service supplier said on 6 Jul 2020. As a result of multiple rounds of design checks, engineering studies, and discussions with technology licensors, Sulzer Chemtech was able to redesign the internals for what was to be the complex's previously planned 500,000-b/d refinery to suit its revised 650,000-b/d capacity without expanding the equipment footprint. The plant will not only help Nigeria meet its own fuel demand and become self-sufficient, but will also add Nigeria to the list of top global exporters of gasoline, diesel, aviation jet fuel, as well as other petrochemicals and petroleum-based products, such as polypropylene (PP), Sulzer Chemtech said. Now scheduled to be completed by end-2022, Dangote's \$12-bn Lekki integrated complex-which will become the world's largest single-train refinery upon commissioning-will include the 650,000-b/d crude distillation unit, a 3.6-M tonnes/y PP plant, a 3-M tonnes/y urea plant, and gas processing installations to accommodate 3 bcf of natural gas that will be transported through 1100 km of subsea pipeline to be built by Dangote Group. Sulzer Chemtech said the refinery will have various processing units containing more than 65 columns and requiring more than 15 static mixers. Major processing installations will include a residue fluid catalytic cracker, mild hydrocracker, alkylation unit, naphtha hydrofining unit, as well as continuous catalytic reforming units for production of gasoline and diesel meeting Euro 5-quality standards and jet fuel adhering to international aviation specifications. The complex will be equipped to produce a combined 33 M tonnes/y of petroleum products, including gasoline, diesel, kerosene, aviation fuel, and other petrochemicals.

Original Source: PennWell Corporation, 15 JUN 2020 (Website: <http://www.ogj.com/index.html>) © Pennwell Corporation 2020.

### KBR awarded contract for vinyl acetate monomer catalyst by Shenghong Refining, China

KBR has announced that it has been awarded a catalyst supply contract for a vinyl acetate monomer (VAM) project by Shenghong Refining Petrochemical (Lianyungang) Co Ltd, China. Under the terms of the agreement, KBR will provide proprietary catalyst for Shenghong's grassroot 300,000 tonnes/y VAM unit. The unit represents the first commercial VAM technology licence and engineering contract under an alliance agreement between KBR and Showa Denko KK (SDK).

Original Source: KBR Inc, 2020. Found on PRNewsWire 14 JUL 2020 (Website: <http://www.prnewswire.com>).

### Orion Engineered Carbons commissions new air emissions controls at US facility

To comply with strengthened environmental standards, Orion Engineered Carbons SA has finished an upgrade of its emissions controls at its facility in Orange, TX, US. The upgrade has reduced the facility's emission permits for SO<sub>2</sub> and NO<sub>x</sub> by 2300 tonnes/y of air pollutant emissions, according to the company. The facility now features thermal oxidizer that is more effective than the incinerator that was formerly used to minimize the pollutant and a Selective Catalytic Reduction reactor to minimize the emission of NO<sub>x</sub>. The project, which spanned from mid-2019, is now fully operational.

Original Source: Coatings Today, 20 JUL 2020 (Website: <http://www.paint.org>) © American Coatings Association 2020.