

ASIACHEM: SINOPEC Speeds up Coal Chemical Investment in 2010

On Dec. 18 2010, Zhong'an (Sinopec-Anhui) United Coal & Chemical Industry Co., Ltd held an inauguration and start construction of its coal chemical integrated project in Huainan City, Anhui Province. Nameplates of Anhui Huainan Modern Coal Chemical Industry Park and Sinopec Coal Chemical (Huainan) Base were also unveiled on the event.

Zhong'an United is 50:50 jointly invested and set up by Sinopec and Wanbei (North Anhui) Coal & Power Group Company. At the Sinopec side, Sinopec assigned its subsidiary - Yizheng Chemical Fiber Corporation as the executing operator of the project. Construction scope of phase I coal chemical integrated project shall include a 4Mt/a coal mine, a 1.7Mt/a methanol-to-olefins (methanol feeding) unit and downstream plants.

ASIACHEM considers that the activities of Sinopec in new coal chemical reflects its strategy on feedstock diversification. Sinopec has carried out a series of R&D and project planning in the field of new coal chemicals, including F-T (Fischer-Tropsch) synthetic fuels, methanol-to-olefins and SNG (coal-based synthetic gas) etc.

1. for R&D, Sinopec self developed F-T Synfuels and S-MTO processes

In 2006, Sinopec built a 3kt/a F-T synthesis pilot unit in Zhenhai Refinery & Chemical Corporation (ZRCC), and organized a joint R&D team composed of Research Institute of Petrochemical Processing (RIPP), Sinopec Ningbo Engineering Co Ltd (SNEC), ZRCC and Dalian Institute of Chemistry & Physics of Chinese Academy of Sciences (DICP-CAS) as the core members. In 2010, the unit was put on the 7th run of pilot test based on RFT-2 catalyst developed by RIPP and manufactured by Sinopec Changling Refinery & Chemical Company. Up to Dec. 2 2010, the unit had kept steady operation under high space velocity and high conversion for 1000 hours, and outputted around 180 ton of oil product in total, indicating a milestone of the Sinopec self-developed fixed-bed F-T synthesis technology.

Sinopec methanol-to-olefins (S-MTO) process was developed by its Shanghai Research Institute of Petrochemical Technology (SRIPT), and an industrial test unit was built in Yanshan Petrochemical, another subsidiary of Sinopec. The plant of 100t/d methanol feed was suggested and approved by Sinopec in 2006, reached mechanical completion and started up with success in 2007. Process design of a kt/a S-MTO catalyst plant was accomplished in 2009. In April 2010, an inauguration ceremony was held to lay corner stone for a 600kt/a S-MTO project (600 kt/a methanol feeding) owned by Zhongyuan Petrochemical, another subsidiary under Sinopec, as a symbol of the first commercial application of S-MTO process.

2. for industrial projects, Sinopec planned CTO and SNG projects

In May 2010, Sinopec Nanjing Chemical Industry Corp and Shanxi Lanhua Coal Industry Group Co. Ltd signed a cooperation agreement in Shanghai. The parties will invest CNY18bn to build 1.8Mt/a methanol to 600kt/a olefins project in Jincheng City of Shanxi Province.

In August 2010, Sinopec and Hebi Municipal Government of Henan Province signed a cooperation agreement with for coal chemical integrated project to be constructed in local area. The whole project will include two parts - coal mining and coal chemical, and Henan Coal & Chemical Industry Group (HCCIG) and Sinopec shall take charge of the two parts respectively. Sinopec will therefore lay CNY15bn investment in the region to forge a chemical industry chain headed by a 1.8Mt/a methanol to olefins complex.

In Oct. 2010, Sinopec and Guizhou Provincial Government signed a strategic cooperation agreement. Based on the agreement, Sinopec plans to invest CNY81.5bn in Guizhou to develop modern coal chemical industry, and explore oil & gas resources, and build refined oil pipelines and distribution network, as well as speed up the construction of a “coal-power-chemical integration project in the New Energy-Chemical Site of Bijie-Zhijin Cyclic Economy New District. Construction of Zhijin integrated site shall be conducted in three phases based on CNY52bn of total capital investment. Up to the date, Guizhou Province has submitted the proposal of Zhijin 600kt/a coal based polyolefin project to the National Development & Reform Commission (NDRC) and the preparation works are going ahead.

On Dec. 12 2010, Sinopec and the Government of Xinjiang Autonomous Region signed a strategic cooperation framework agreement, to further promote the construction of Sinopec projects in Xinjiang, including gas pipeline construction, SNG (Synthetic Natural Gas) and other coal chemical projects, as well as refinery and petrochemical projects and oil distribution networks etc. According to the agreement, Sinopec is planning a pipeline to transportation Xinjiang produced natural gas (including SNG) towards eastern provinces, also to speed up the construction schedule of coal chemical projects in Zhundong and Yili of Xinjiang.



ASIACHEM considers that, by the R&D pilots and industrial projects, Sinopec has unveiled the strategy in new coal chemical industry. Especially in 2010, impacted by the steady rebound of world oil price, Sinopec has obviously speeded up the technology R&D and project promotion. It can be seen that in the future 5 years, Sinopec – the state owned traditional petrochemical company will more activated in the booming coal chemical industry of China.