

DuPont Clean Technologies



North Huajin Refining and Petrochemical Company, Ltd. contracts DuPont Clean Technologies for IsoTherming[®] Hydroprocessing Technology

For energy efficient production of ultra-low sulfur jet and diesel fuels

WILMINGTON, Del., May 18, 2021– North Huajin Refining and Petrochemical Company, LTD. (North Huajin) has signed contracts with Refining Technology Solutions, LLC, a subsidiary of DuPont Clean Technologies (DuPont) for the license, basic engineering, and technical services for a new combined IsoTherming[®] kerosene/diesel hydrotreater (KDHT). The grassroots hydrotreater is one of many units included as part of the greenfield fully integrated refining and petrochemical complex that will be located in Liaodong Bay New Area, Panjin, Liaoning Province, China. North Huajin commissioned DuPont for an IsoTherming[®] KDHT unit with a nameplate capacity of 1,600 kmtd (37,000 bpd), capable of producing fuels compliant with both Jet 3 fuel standard and China VI diesel.

IsoTherming[®] hydrotreaters enable refiners to produce high-quality, low-sulfur fuels that comply with increasingly stringent environmental requirements, but at lower energy consumption rates and operating costs than trickle bed hydroprocessing units. The IsoTherming[®] technology is commercially proven to process a wide range of feedstocks, from kerosene to vacuum gas oil, including 100 percent light cycle oil. The units are designed to provide refiners with consistent savings on utilities in the magnitude of 30-60 percent compared to trickle bed technologies and the potential of 30 percent capital cost savings or more.

“We are very grateful to have the opportunity to provide the combined kerosene/diesel hydrotreater to North Huajin for their Fine Chemicals and Raw Materials Project,” said Kevin Bockwinkel, global business manager, IsoTherming® Hydroprocessing Technology. “The IsoTherming® technology provides them an attractive low capital cost option to make fully compliant fuels in an energy efficient manner. We look forward to continuing to build a solid relationship with North Huajin.”

The greenfield complex is a key part of the revitalization of the rustbelt region of northeast China. In addition, by selecting the IsoTherming® technology for this hydrotreater, the refinery will minimize CO₂ emissions due to lower energy requirement within the unit in comparison to trickle bed technologies. This decrease in emissions will further assist China in its goal to become carbon neutral by 2060.

Startup of the IsoTherming® KDHT unit at the Panjin site is expected to take place by the end of 2023.

The IsoTherming® hydroprocessing technology utilizes a novel liquid-phase reactor system offering distinct advantages over conventional hydroprocessing technologies in that it uses hydrogen and catalyst more efficiently. The IsoTherming® hydroprocessing technology is suitable for a wide range of applications, including 100% kerosene hydrotreating, 100% light cycle oil (LCO) hydrotreating, transmix hydrotreating, diesel hydrotreating, FCC feed hydrotreating (VGO hydrotreating), mild hydrocracking, dewaxing, gas-to-liquid (GTL) upgrading, and heavy oil upgrading for both grassroots and revamp configurations. Licensed and marketed by DuPont as part of its Clean Technologies portfolio, the IsoTherming® technology has been licensed in 28 refineries worldwide with capacities ranging from 1,500 bpd (82 kmta) to 80,000 bpd (3,900 kmta), offering refiners a lower CAPEX and OPEX solution than conventional hydroprocessing options.



CONTACTS

DuPont Clean Technologies

Jeannie Branzaru

Tel: +1-913-327-3552

jeannie.e.branzaru@dupont.com

IsoTherming® Hydroprocessing

Kevin Bockwinkel

Tel: +1-913-327-3536

kevin.b.bockwinkel@dupont.com



About DuPont Clean Technologies

The Clean Technologies division of DuPont is a global leader in process technology licensing & engineering, with an unwavering commitment to customer support. We provide extensive global expertise across our portfolio of offerings in key applications - MECS® sulfuric acid production, STRATCO® alkylation, BELCO® wet scrubbing and IsoTherming® hydroprocessing. Offering critical process equipment, products, technology and services, we enable an array of industrial markets, including phosphate fertilizer, non-ferrous metals, oil refining, petrochemicals and chemicals, to minimize their environmental impact and optimize productivity. We are dedicated to helping our customers produce high-quality products used in everyday life in the safest, most environmentally-sound way possible, with a vision to make the world a better place by creating clean alternatives to traditional industrial processes. We make everyday life better, safer, cleaner.

www.cleantechnologies.dupont.com

About DuPont

DuPont (NYSE: DD) is a global innovation leader with technology-based materials, ingredients and solutions that help transform industries and everyday life. Our employees apply diverse science and expertise to help customers advance their best ideas and deliver essential innovations in key markets including electronics, transportation, construction, water, health and wellness, food and worker safety. More information can be found at www.dupont.com