

DuPont Clean Technologies



PVS Chemicals Belgium N.V. produces carbon-free energy and improves capacity in e-grade sulfuric acid plant through new MECS[®] gas system

As part of a multi-phased revamp project, the chemical company increases acid plant capacity and optimizes heat integration to ensure reliable & sustainable e-grade acid production for the semi-conductor industry.

WILMINGTON, Del., October 25, 2021 – PVS Chemicals Belgium N.V. (PVS) has successfully started up a new MECS[®] converter and steaming equipment, licensed by DuPont Clean Technologies (DuPont) at its sulfuric acid plant in Gent, Belgium. The new 4-pass converter which offers a plant capacity increase to approximately 300 mtpd sulfuric acid replaces two parallel converter trains. The converter upgrade along with new steaming equipment will allow PVS to double the plant's saturated steam output. PVS will not only be able to supply steam generated from the new boilers to an industrial neighbor but will also prevent approximately 11,700 tons of CO₂ from entering the atmosphere every year – roughly equivalent to planting 195,000 trees annually.

The PVS sulfuric acid plant in Gent is one of the few sites globally to produce ultra-high purity sulfuric acid, a critical ingredient for the semiconductor chip industry.

David Nicholson, President and CEO of PVS Chemicals Inc. says, "This project and the teamwork, perseverance and hard work shown by all project members, including MECS[®] field services who worked alongside us through successes and difficulties to deliver the plant, ensure PVS Belgium has a bright future. This project builds on the 126 years of history at this plant and gives it a new heart, so it is ready to run for decades to come."

Eli Ben-Shoshan, says, "Sulfuric acid plants are key sources of carbon-free energy. By capturing that energy, the industry can contribute to decarbonizing thermal energy production. We are delighted to be able to assist PVS Chemicals in that aim and to help the plant optimize energy recovery while ensuring reliable, high quality sulfuric acid production so the plant can consistently meet production capacity targets."

PVS anticipates that this project will pay for itself within just a few years through the achieved capacity increase and long-term steam supply contract.

PVS kicked off its multi-phased plant revamp project in 2018 with a process and engineering assessment by DuPont who was subsequently commissioned with the license and engineering design of the MECS® converter, catalyst and steaming equipment. The design included additional steaming equipment to maximize energy recovery and new generation MECS® GEAR® catalyst was selected to optimize CAPEX. Erection of the equipment, which started in early 2020, was hampered by the COVID-19 pandemic, but DuPont and PVS Belgium safely and successfully completed the erection and tie-in of the new equipment in partnership during a three-week turnaround. DuPont furthermore provided support during commissioning, training, start-up and performance tests.

PVS and DuPont will be co-presenting a paper on this project at CRU Sulphur 2021 on November 4, 2021. For further details visit: <https://events.crugroup.com/sulphur/timetabled-agenda>



The new MECS® converter at the PVS Chemicals Belgium plant



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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.

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About DuPont

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