

MECS AWARDED SPENT ACID REGENERATION PLANT AT SINOPEC ZHENHAI

Large scale integrated refining-chemical complex is embracing the circular economy. Waste sulfuric acid from onsite processes will be regenerated for re-use.

ST. LOUIS, MO, USA April 19, 2023 – Sinopec Zhenhai Refining and Chemical Co., Ltd (Sinopec), China's largest integrated refining-chemical enterprise, has contracted with MECS, Inc. (MECS) and MECS Chemical Plants Equipment (Shanghai) Co., LTD., subsidiaries of Elessent Clean Technologies (Elessent), for the license, design, engineering, and equipment for a spent sulfuric acid regeneration plant. This plant will be located at Sinopec's petrochemical complex in Ningbo, Zhenhai province, People's Republic of China. The spent acid regeneration plant will be built in conjunction with Sinopec's planned expansion of its sulfuric acid alkylation and acrylonitrile facilities at the Ningbo site.

The growing use of sulfuric acid alkylation by refineries and increased production of spent sulfuric acid from chemical plants necessitate a resource to process the additional spent acid being produced. For many companies, consistently dependable regeneration technology is critical to meeting capacity requirements and fulfilling end market demands. MECS® dry gas sulfuric acid regeneration (SAR) technology offers sulfuric acid producers a highly effective solution that supports the production of very high quality alkylate, while ensuring consistent uptime with limited maintenance requirements.

By introducing an acid regeneration plant into their refinery, Sinopec is reducing as much waste as possible and prioritizing air quality. The MECS® acid plant and equipment used at the refinery will guarantee tight emissions control and assist with sustainability efforts, as well as long-term profitability, by decreasing dependence on new resources. The prioritization of conservation measures is ultimately contributing to a circular economy which goes hand in hand with Sinopec's commitment to social responsibility.

Mr. Eli Ben-Shoshan, CEO, Elessent, said, "We are honored to play a role in a project that provides our customer, Sinopec Zhenhai, with a means to strengthen sustainability in the region. Our sulfuric acid regeneration technology allows Sinopec to keep sulfuric acid in circulation for as long as possible. This provides great value for our customer and allows them to incorporate another measure of sustainability into their refining operation."

The MECS® sulfuric acid technology has been in use for nearly a century in the phosphate fertilizer, non-ferrous metals (leaching & smelting), oil refining and general chemical industries. MECS® technologies feature breakthrough solutions, many of which have revolutionized the performance, quality and cost-effectiveness of customer operations. They include MECS® heat recovery systems (HRS™), MECS® SolvR® regenerative SO₂ scrubbing and MECS® MAX3™ sulfuric acid production technology. Integrated into these MECS® technologies are proven specialty products such as catalysts, Brink® mist eliminators, DynaWave® scrubbers, ZeCor®



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corrosion resistant alloy products, and acid coolers all of which are specifically designed for the most demanding operating environments. Licensed and marketed by Elessent Clean Technologies, the MECS® technology is the world-leading sulfuric acid production technology with more than 400 licensed acid plants worldwide since the 1960's. Elessent Technologies is committed to long-term customer satisfaction and support for the life of customer assets



About Elessent Clean Technologies

Elessent Clean Technologies is a global leader in process technologies to drive sustainability and carbon neutrality in the metal, fertilizer, chemical and oil refining industries 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. Learn more at www.ElessentCT.com.

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