

CPC TAOYUAN MECS® DYNAWAVE® SYSTEM AWARDED 22ND PUBLIC CONSTRUCTION GOLDEN QUALITY AWARD

The DynaWave® system incorporates technologies that are essential for flare gas desulfurization

ST. LOUIS, MO, USA, June 6, 2023 – Taiwanese refinery, CPC Taoyuan (CPC), was the recent recipient of the 22nd Public Construction Golden Quality Award for the successful startup and continuous operation of an MECS® DynaWave® wet gas scrubbing system for flare gas desulfurization. CPC partnered with Mascol Engineering, Co., Ltd., and Elessent Clean Technologies (Elessent) for the design and provision of the MECS® DynaWave® system that features reverse jet scrubbing nozzles technology which was designed to remove hydrogen sulfide and wastewater chemical oxygen demand (COD) using high efficiency soda scrubbing.

The Claus process is the most widely used process to recover sulfur from gaseous hydrogen sulfide (H₂S), but a typical Claus sulfur recovery unit only recovers 95%-98% of sulfur present. The DynaWave® reverse jet scrubber is an open duct in which scrubbing liquid is injected through a non-restrictive reverse jet nozzle, counter current to the dirty inlet gas. Liquid collides with down-flowing gas to create the “froth zone,” a region of extreme turbulence with a high rate of mass transfer, and this froth zone technology allows the performance of desulfurization in a wet gas environment. DynaWave® wet gas scrubbing technology provides reliable operations and guaranteed SO₂ removal to meet environmental and good-neighbor objectives. This proven technology delivers over 99.9%+ sulfur removal.

Mr. Eli Ben-Shoshan, Elessent CEO, said of the project, “We are delighted to be a part of this project and to assist CPC Taoyuan with emissions regulations compliance using our highly efficient and extremely flexible DynaWave® technology. We are committed to providing clean solutions that are specifically designed to address the demands of the oil and gas industry and reduce the environmental impact of refineries on the environment.”

The MECS® DynaWave® scrubbing technology offers robust and effective emissions control through a reverse jet technology that effectively cleans and quenches hot process gases without plugging. Designed to work with a variety of reagents, these systems provide simultaneous control of particulate and acid gas emissions for wide range of industries and applications. For Sulfur Recovery Unit (SRU) tail gas cleaning, the MECS® DynaWave® technology makes it possible to quench incinerated gas, remove potential sulfur particulate entrainment, and absorb SO₂. The technology offers high turndown capabilities and the unique flexibility of handling extremely high SO₂ concentrations when conventional tail gas treatment units (TGTUs) are bypassed during start-up, maintenance, or unexpected outages, ensuring uninterrupted SRU

operation with guaranteed low emissions at all times. Licensed and marketed by Elesent Clean Technologies, the MECS[®] DynaWave[®] scrubbing technology has been successfully used at more than 400 sites worldwide and 100 sites in the oil and gas industry. Elesent Clean Technologies is committed to long-term customer satisfaction and support for the life of customer assets. Learn more at ElesentCT.com.





About Elessent Clean Technologies

Elessent Clean Technologies is a leading source of solutions for decarbonizing the industrial manufacturing sector and transitioning the industry to a sustainable future. Our clean technology solutions minimize environmental impact and optimize productivity while remaining cost competitive. As a responsible supplier and partner to the metal, fertilizer, chemical, petrochemical and oil refining industries, our technology portfolio includes MECS[®] sulfuric acid production, STRATCO[®] alkylation, BELCO[®] wet scrubbing and IsoTherming[®] hydroprocessing. Offering critical process equipment, products, technology and services, we are dedicated to helping our customers produce high-quality, cleaner products for the world. Learn more at www.ElessentCT.com or connect with us on LinkedIn.

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