



thyssenkrupp

## Press release

thyssenkrupp Uhde

February 20, 2025

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### **MOPCO to enhance sustainable urea and ammonia production with thyssenkrupp Uhde's carbon capture and green ammonia solutions**

- **Proprietary CO<sub>2</sub> recovery and usage (CCU)**
- **Innovative converter revamp to reduce natural gas consumption**
- **Three ammonia plants to be prepared for green ammonia production including export facilities**

thyssenkrupp Uhde has been selected by MOPCO – Misr Fertilizers Production Company (Egypt) – to supply advanced technology for three existing ammonia and urea plants in Damietta, Egypt, to enhance the sustainability of their production. Using an innovative carbon capture and usage (CCU) solution from thyssenkrupp Uhde, the aim is to remove up to 145,000 t/year of CO<sub>2</sub> from the flue gas of the existing ammonia production and use them in the urea production. At the same time, three state-of-the-art uhde® ammonia converter cartridges will be installed in the existing converters to increase ammonia production capacity while lowering natural gas consumption in the synthesis loop by around 10%. To bring down CO<sub>2</sub> emissions even further, additional green hydrogen feedstock will be sourced from new water electrolysis units powered by renewable energy. MOPCO plans to produce up to 150,000 tons per year of green ammonia.

Ahmed Mahmoud El-Sayed, Chairman of the Board and Managing Director of MOPCO: “This collaboration with thyssenkrupp Uhde marks a significant step towards our sustainability strategic goals. Their world-leading technologies will not only increase our production capacity but also deliver proof for our commitment to provide more climate-friendly urea and produce green ammonia, where MOPCO will become one of the leaders to produce such products in MENA.”

Nadja Håkansson, CEO of thyssenkrupp Uhde: “We are proud to enable our longstanding partner MOPCO to expand their business towards a greener production through our innovative carbon capture and low-emission ammonia solutions.”

The ammonia and urea plants (three plants each) were originally built by thyssenkrupp Uhde between 2006 and 2015, each plant having a capacity of approximately 1,200 metric tons per day (mtpd) of ammonia and 2,000 mtpd of urea respectively. Now, to increase ammonia production capacity, three new uhde® ammonia converter cartridges will be inserted. The new cartridges, based on the latest design principles like removable beds with axial-radial flow design, will boost production by 150 mtpd per plant in order to allow MOPCO to produce ammonia. This is achieved through a significant increase of effective catalyst volumes and utilizing Johnson Matthey's high-performance catalyst KATALCO™ 74-1 as part of the solution.

As the cartridges are designed for installation in existing pressure shells, hardware adjustments are kept at a minimum and the revamp can be carried out with minimized downtimes. thyssenkrupp Uhde will provide comprehensive services throughout the installation and start-up phases, including the tie-in of the planned green hydrogen supply.

#### **About MOPCO:**

Misr Fertilizers Production Company "MOPCO" is the largest nitrogen fertilizer complex in the Arab Republic of Egypt. It was established in 1998 with one production train of ammonia/urea. In 2011, MOPCO acquired two more ammonia/urea production trains from Egyptian Nitrogen Products Company "ENPC". MOPCO specializes in the production of urea as a basic product and ammonia as an intermediate product using advanced technology that achieves the highest levels of product quality, safety, and environmental protection. In addition, MOPCO are producing AdBlue and in the process to study developing other projects like Melamine, Technical grade Urea and others.

[www.mopco-eg.com](http://www.mopco-eg.com)

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### **About thyssenkrupp Uhde**

thyssenkrupp Uhde combines unique technological expertise and decades of global experience in the engineering, procurement, construction and service of chemical plants. We develop innovative processes and products for a more sustainable future and thus contribute to the long-term success of our customers in almost all areas of the chemical industry. Our portfolio includes leading technologies for the production of base chemicals, fertilizers and polymers as well as complete value-chains for green hydrogen and sustainable chemicals. [www.thyssenkrupp-uhde.com](http://www.thyssenkrupp-uhde.com)

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