

Technical Committee Meeting

Forum & Technical Field Visit

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International Fertilizer Industry Association

FERTIL PLANT COMPLEX VISIT

Ruwais Fertilizer Industries (FERTIL) was established in 1980, as a joint venture between Abu Dhabi National Oil Company (ADNOC) and Total-Compagnie Francaise des Petroles (Presently known as TOTAL). ADNOC and TOTAL hold shares in the company in the ratio of 2 : 1 respectively. Construction of the complex commenced in October 1980 and production started in December 1983.

The prime objective of establishing the company has been to utilise associated gas coming from the onshore fields of Bab, Asab and Thammama "C" to manufacture fertilizers and sell these in the local and international markets.



FERTIL's installations are located in the Ruwais Industrial Zone on the Arabian Gulf coast about 240 Km west of Abu Dhabi city. The complex comprises ammonia and urea processing plants with installed capacities of 1050 MTPD and 1500 MTPD respectively. The plants have fully integrated utility units with product handling and shipping facilities. The seawater, desalinated water and power are imported from ADNOC utilities plant.

The original 1000 MTPD ammonia plant was designed and constructed by Chiyoda Engineering Corporation under licence from Haldor Topsoe. The process licence for the carbon dioxide recovery unit is from the Benfield Corporation. The plant was commissioned in December 1983 and the hydrogen recovery unit, licensed by Costain, was added to the plant in 1988. This increased the design capacity to 1050 MTPD.

The urea plant was designed and constructed by Chiyoda Engineering Corporation with the process licence from Stamicarbon with a design capacity of 1500 MTPD of prilled urea.

The existing operating rates of the two units are 130% for Ammonia and 120% for Urea.

Prilled urea is stored in two Bulk stores, each having a storage capacity of 45,000 MT. These are equipped with a reclaimer and a conveyor system, which transports the product to bulk transport ships, or to the bagging plant for high-speed packing and then onward movement to FERTIL's jetty.



Ammonia is stored in two 20,000 MT each atmospheric storage tanks. Approximately 80% of the total ammonia production is converted into urea, and 20% exported as ammonia.

FERTIL's jetty is capable of accommodating simultaneously two ships of 5,000~35,000 DWT. The terminal is equipped with following loading facilities:

- Two modern vertical discharge type, dual function bag & bulk ship loaders, having loading capacities of 200 MT/H and 400 MT/H respectively.
- Liquid Ammonia loading Arm capable of loading ship at 500 T/H
- Liquid Ethylene loading Arm capable of loading ship at 250 T/H (This operation is carried out on behalf of BOROUGE the Ethylene producer located in Ruwais Industrial complex)

The ammonia and urea production facilities are serviced by the following utility systems:

- Raw water storage and BFW treatment systems
- Steam generation package boilers (2 x 140 Tons/Hour capacity at 40 Kg/Cm²)
- Instrument and plant air systems
- Nitrogen and hydrogen generation plants
- Fire water storage and distribution system
- Sea water and closed circulation cooling systems
- Effluent treatment system

Product sales are geared toward the international export markets mainly Philippines, Pakistan, USA/Italy, Far East, Vietnam, Sri Lanka, Iran, Africa, India and Myanmar.