



## USED 800 TPD UREA PLANT

**Capacity:** 800 TPD

**Raw Materials:** Ammonia and Carbon Dioxide

**Process Information:** Ammonia and carbon dioxide are reacted in high pressure and high temperature to form ammonium carbamate (urea solution).

### Major Equipment

- CO2 compressors
- Ammonia compressors
- Ammonia condenser
- Urea reactor
- Primary decomposer separator
- Primary absorber
- Secondary absorber
- Desorber
- CO2 scrubbers
- Process water stripper
- Evaporator separator
- Wash tower
- Stripper

### Brief Plant Description

Used 880 TPD urea plant designed by Vulcan (CPI Allied). High pressure 6,000 psig, once through urea reactor capable of 80% CO<sub>2</sub> conversion complete with zirconium liner and purge water protection system. The plant includes carbamate decomposer and ammonia stripper. Monoethanolamine based CO<sub>2</sub> removal system. The plant has been uprated by addition of (1) additional CO<sub>2</sub> compressor and (1) additional ammonia charge pump to achieve current capacity of 880 metric tons per day. CO<sub>2</sub> compression using (3) Ingersol Rand heavy horizontal electric reciprocating compressors. Ammonia feed to reactor using (4) Worthington Septuplex plunger pumps. The product of this plant goes to Urea Granulation Plant #536 to make urea granules.

**For more  
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