

SIMULATION PROGRAMS FOR THE FERTILIZER PLANT

AMMONIA I (Primary & Secondary Reforming) - AUDY™ 5340

Includes: feed gas compressor, 2-state air compressor, primary reforming furnace, secondary reformer, waste heat boilers, auxiliary boiler, 4-steam headers, surface condenser, de-aerator, with steam usage loop

AMMONIA II (Synthesis Gas Purification) – AUDY™ 5350

Includes: high temperature shift converter, low temperature shift converter guard bed, LTSC, CO₂ removal, methanation, synthesis gas suction drum and CO₂ regeneration.

AMMONIA III (Ammonia Synthesis) - AUDY™ 5360

Includes: an interactive steam system, refrigeration system, and synthesis gas conversion.

UREA I – AUDY™ 5380

Includes: reactor, stripper, scrubber, absorbers, rectifying column, evaporator/separators, distillation column, hydrolyzer, condensers, heat exchangers, tanks, a compressor, pumps, as well as the associated piping and valves.

UREA II – AUDY™ 5390

Includes: compressor train, carbamate system, urea reactor, MP decomposer, separator and absorber, ammonia recovery, LP decomposer and separator, vacuum separators and urea melt pumps.

NITRIC ACID – AUDY™ 5400

Includes: NH₃ separator, NH₃ evaporator, air compressor with tail gas expander, tail gas heaters, ammonia heaters, ammonia combustion reactor, waste heat boilers, NO gas coolers, two (2) absorbers, bleacher, acid storage, steam condenser, deaerator, one (1) steam header, one (1) steam turbine on air machine.

NITRO PHOSPHATE (NP PLANT) – AUDY™ 5410

Includes: rock handling system, dissolving reactor, CN crystallizers, centrifuge, recrystallizer, drum filter, neutralizer and NP melt tank.

CALCIUM AMMONIUM NITRATE (CAN PLANT) – AUDY™ 5420

Includes: CN preneutralizer, CN reactor, slurry filter, lime drying system, AN reactor, AN evaporator and lime mixing.