**ABSORPTION**

**PROCESS DESCRIPTION:**

Gas absorption is an operation in which a gas mixture is contacted with a liquid for the purposes of preferentially dissolving one or more components of the gas and to provide a solution of them in the liquid. When mass transfer occurs in the opposite direction, i.e. from the liquid to the gas, the operation is called desorption, or stripping. The principles of both absorption and desorption are basically the same.

Exhaust gases from the reactor and granulator containing ammonia are scrubbed with phosphoric acid. Co-current void tower is used to dissolve the gas in the liquid (phosphoric acid). The scrubber liquid is re-circulated via an integral sump and pump. A constant bleed of liquor is fed to the ammonia scrubber under level control.

The gases at the ammonia scrubber inlet are maintained below 90oC by a constant bleed of cold air or water injection into the hot gases. Specific gravity in ammonia scrubber is maintained below 1.6 by addition of water and the liquor bleed is fed to the reactor under level control.



