

Intervening Technology/Technique	Ammonical Nitrogen Recovery from Waste water
About the Industry	M/s. Amsal Chem located at the Industrial Estate Ankleshwar, Gujarat. It manufactures the Active Pharmaceutical Ingredients Nutraceuticals Intermediate of Omeprazole.
Implemented Techniques/Technology	<p style="text-align: center;"><u>Before</u></p> <p>The waste water containing ammonical nitrogen in the I. Such waste water has pH less than 7, that was acidic in nature. Caustic soda solution (48-50%) was added to waste water to make it alkaline and bring the pH to +11. That released free ammonia into the water. The ammonia was stripped from waste water by contacting it with large amount of air so that the effluent reaches the desired level of ammonical nitrogen content.</p> <p>The stripping air containing ammonia was contacted with dilute sulphuric acid to give a solution of ammonium sulphate as crystals.</p> <p style="text-align: center;"><u>After</u></p> <p>At present treating influent in their convectional E.T. plant with biomass. After adopting new technology of ammonium nitrogen stripping they will recover ammonium sulphate and then effluent will require reduction of treatment in E.T. plant with biomass for further reduction.</p>
Benefits	<ul style="list-style-type: none"> ● The solution of ammonium sulphate can be used as a fertilizer for crop production. ● Reduction in the cost of nutrients for Biological treatment as the solution acts as a nutrient for biomass development. ● Achieved the discharge norms stipulated by GPCB.

