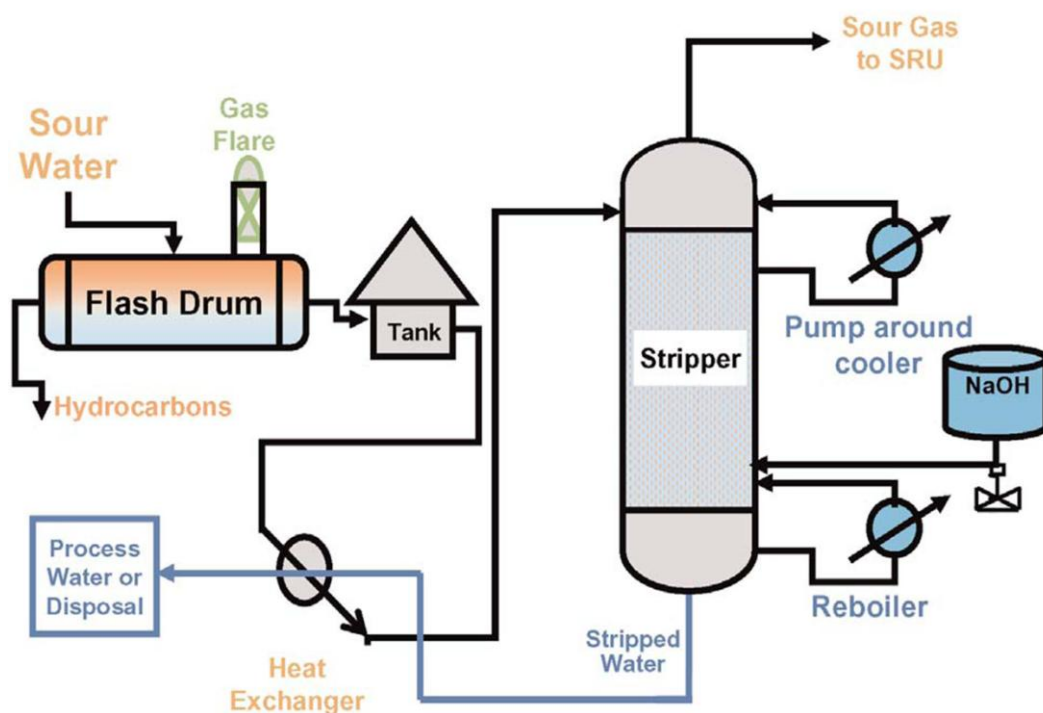


Sour Water Stripper (SWS): Analysis of hydrogen sulphide and ammonia in Sour Water.

Sour water is condensed wastewater produced during many downstream refining processes containing hydrogen sulfide, ammonia and other contaminating compounds. It is often acidic in nature and can cause corrosion problems within the refineries pipework so must be treated before it can be reused or disposed to the waste treatment plant.

The sour water is treated in the Sour Water Stripper (SWS) that uses a steam stripping process to remove sulfides and ammonia as gases. At optimum pH the sour water mixes with steam and the ammonia and hydrogen sulphide gas vent to the top of the stripper column to the Sulfur Recovery Unit (SRU). The stripped water is either used to produce steam in the reboiler or pumped within control limits to the wastewater treatment plant for further processing. On line analysis of ammonia and sulfides will increase the "stripper efficiency" of the SWS that leads to significant steam reduction for increased energy savings. Effectively stripping and monitoring H_2S and NH_3 is also an essential operation in the overall pollution reduction program of refiners.



Application: The Process Analyzer 2045TI can analyse H_2S and NH_3 simultaneously with automatic cleaning and calibration using absolute wet chemical techniques. Fast and accurate results are continuously transmitted for process control.

Typical Range: NH_3 : 0-200 ppm H_2S : 0-50 ppm.

Remarks: Other contaminants that increase the sour water corrosiveness like phenol and cyanide can also be analysed with Metrohm Applikon Process Analyzers.