



Studies on recovery of blow down water and zero liquid discharge management at gas turbine power plant

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Abstract : In Gas Turbine Power Plant (GTPP), the required volume of water is around 6000 m³/day for generation of 100MW power. About 30% of water is rejected during various processes. Reverse osmosis (RO) process is a technology to purify water by separating the dissolved solids from feed stream resulting in permeate and reject stream for a wide range in GTPP. It is seen from literature review that RO technology is used to remove dissolved solids, colour, organic contaminants, and nitrate from feed stream. This paper intends to provide an overall vision of RO process and evaporation pond (EP) technology using flue gas heating coils in Thirumakottai gas turbine power station (TGTPS), Tamilnadu as a suitable method for treating the blow down water for recovery and reuse.

Keywords : Gas Turbine power plant; Reverse osmosis; Evaporation pond; Flue gas.

A.Balasubramanian *et al* /International Journal of ChemTech Research, 2017,10(7): 980-986.
