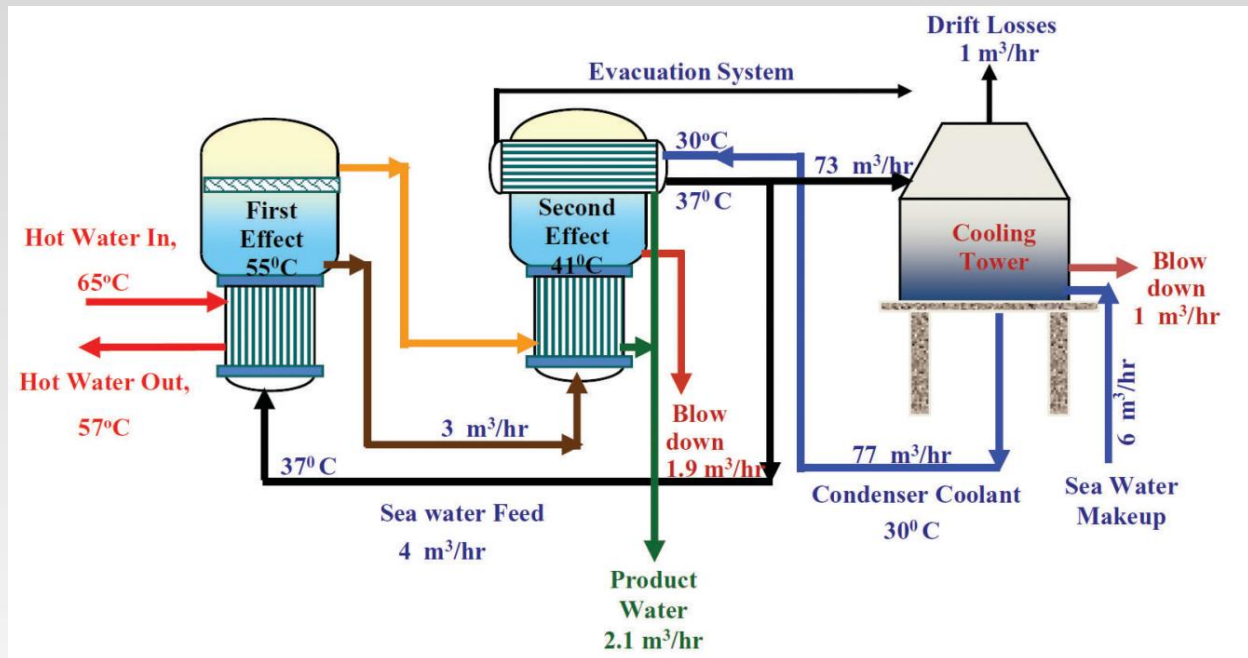


# Low Temperature Evaporation (LTE)



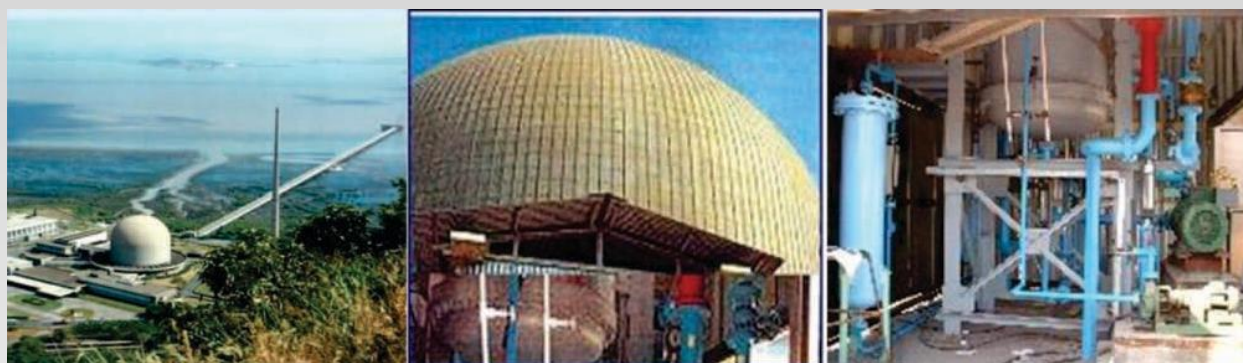
- Low Temperature Evaporation (LTE) is a thermal desalination technology to produce distilled quality water directly from seawater using waste heat in the form of low grade steam/ hot water.
- LTE is rugged technology as the probability of scale formation is nearly eliminated due to its low temperature operation and also does not use any chemicals for pretreatment.
- LTE can also utilize low grade waste heat available in nuclear reactors for producing desalinated water from seawater and meet the make-up water requirement of the reactor.
- BARC has successfully demonstrated nuclear desalination by coupling a 30 m<sup>3</sup>/d LTE desalination plant to a nuclear research reactor.
- BARC has also developed and successfully demonstrated 2 effect 50 m<sup>3</sup>/d LTE desalination plant coupled with cooling tower to improve the overall economics of the process.

For further details contact :

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# Low Temperature Evaporation (LTE)



S.No	Items	Specific Information
1	Objective	Production of distilled quality water from seawater using low grade process waste heat
2	Scope	Know how and consultancy services (process design, system engineering, procurement services) in setting up LTE Desalination Plant
3	Features of the Technology	Uses waste heat in form of hot water/low quality steam as energy source for producing near distilled quality water
4	Capacity	10 - 500 m <sup>3</sup> /d
5	Approximate Capital Cost (Rs/unit)	Rs.200 per LPD at battery limits
6	O&M Cost	2-10 paise/lit (approx) depending on site conditions
7	Any Specific Pre-requisites for installation of the unit	
	Open Space/shed required for installation	50 sqm. for 30 m <sup>3</sup> /d to 400 sqm for 500 m <sup>3</sup> /d
	Electrical Power Requirement	20 - 400kW (Connected Load)
	Thermal Power	Process Waste Heat
	Necessity of Specialized Manpower	Local Manpower can be trained

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