

# Nuclear India

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## Nuclear Desalination Demonstration Plant, Kalpakkam



Based on decades of operational experience of multi-stage flash (MSF) and reverse osmosis (RO) plants at Trombay, BARC has undertaken establishment of the Nuclear Desalination Demonstration Plant (NDDP) at Kalpakkam. NDDP consists of a hybrid MSF-RO desalination plant of 6300 m<sup>3</sup>/d capacity (4500 m<sup>3</sup>/d MSF and 1800 m<sup>3</sup>/d SWRO) coupled to 2 x 170 MWe pressurised heavy water reactors at the Madras Atomic Power Station (MAPS), Kalpakkam.

The sea water reverse osmosis (SWRO) plant has already been commissioned. The MSF plant which is in advanced stage of completion, is designed for higher top brine temperature with Gain to Output Ratio (GOR) of 9:1 and utilizes less pumping power (being long tube design).

INDEX