

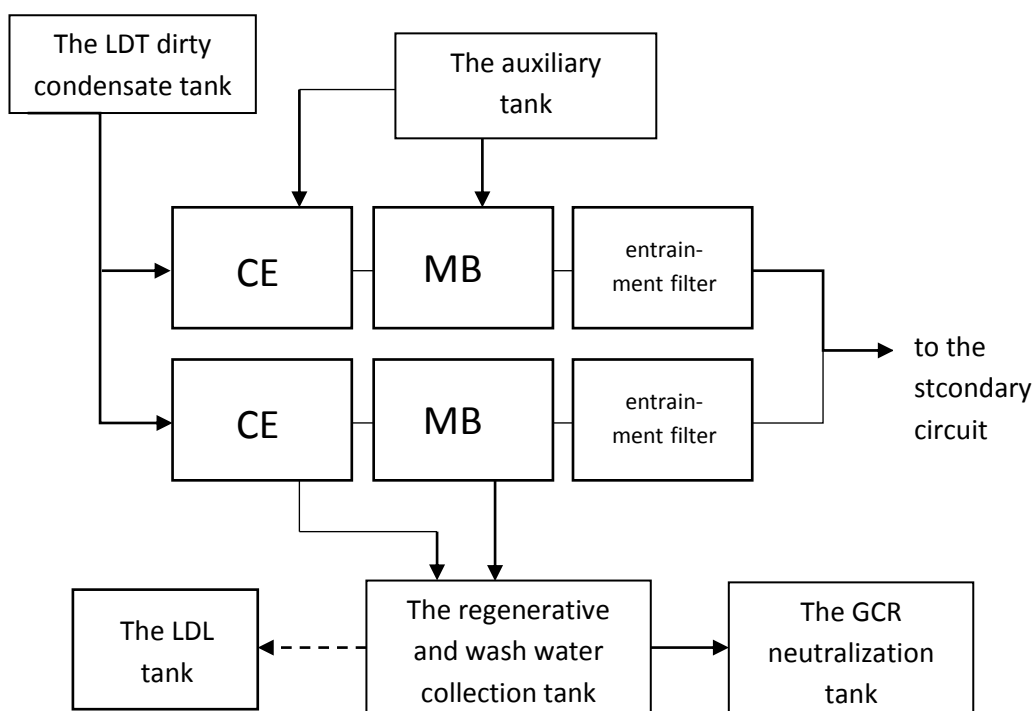
## System of general drain condensate purification LDB

System of general drain condensate purification LDB provides general drain condensate of the first and second units turbine islands, also wastewater of prestart water cleaning of condensate-feed pipeline at periods of after installation start-up, after scheduled preventive repair and shut-down for more three days.

The system consists of two H-cation exchange deironing filters, two MB, two entrainment filters, the auxiliary tank, pumps, strong alkali and strong sulfuric acid meters, acid and alkali dosing pumps, two wastewater tanks, the mixers for regenerative acid and alkali solutions preparation, the hydraulic conveyer, armature, pipelines.

System of general drain condensate purification is working periodically depending of wash and drain water collection in dirty condensate tank of LDT system. Wash water and drain condensate are supplied to H-cation-exchange deironing filters (one is working, one is reserve) with strong-acid cation-exchange resin for corrosion products purification and partially desalting.

The scheme of LDB system is showed on picture below.



Scheme 1. The principal technological scheme of LDB system  
(CE – cation exchanger; MB – mixed bed; GCR – the system of wash water export and neutralization; LDL – the wastewater control system)

Then the partially desalt condensate goes to MB (one is working, one is reserve) with mixed strong-acid cation-exchange and strong-alkali anion-exchange

resins for full desalting. The LDB ion filters regeneration is internal without ion-exchange resin transporting out.

There is hand sampling for quality control of LDB system operation. The system capacity is 150 m<sup>3</sup>/h.