

Supplementary materials

Optimization of the Design Configuration and Operation Strategy of Single-Pass Seawater Reverse Osmosis

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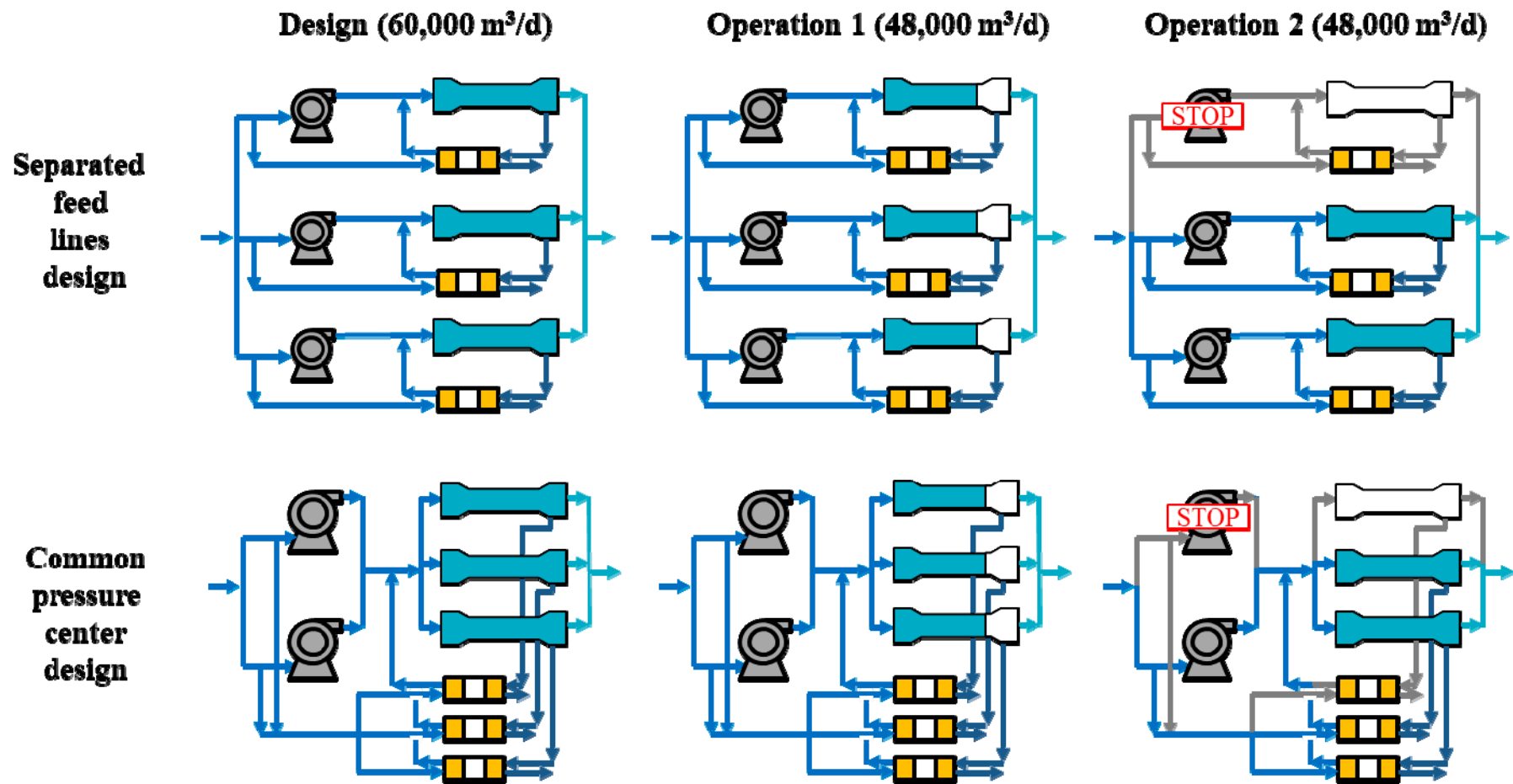
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Table S1. Parameter values for the process constant permeate mode.

Parameter	Value
SWRO model operating conditions	
Target recovery ratio (%)	38–42
Operation duration (days)	365
Membrane element properties	
Intrinsic membrane resistance R_m (m ⁻¹)	2.89×10^{14}
Salt permeability coefficient B (m/s)	9.36×10^{-9}
Spacer thickness H (m)	8.64×10^{-4}
Membrane channel width w (m)	37
Membrane channel length L (m)	1
Number of membrane elements in a pressure vessel	7
Hydrodynamic properties	
Fouling potential of feedwater, k_{fp} (m ⁻²)	5.5×10^{11}
Hydraulic dispersion coefficient D (–)	9.6×10^{-9}
Friction coefficient due to the membrane spacer k_{fr} (–)	8



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2 Figure S1. Graphical summary of design and operation configuration employed in this study.