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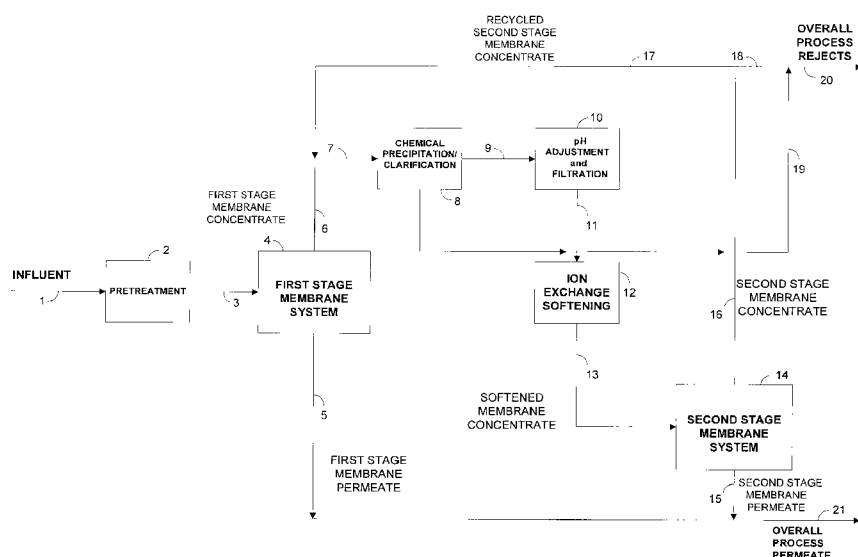
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(54) Title: ENHANCED HIGH WATER RECOVERY MEMBRANE PROCESS



(57) Abstract: Disclosed is an economical process for the purification of water containing soluble and sparingly soluble inorganic compounds using single-stage or two-stage membrane processes that integrate membrane water purification with chemical precipitation softening and residual hardness and silica removal from the membrane concentrates using ion exchange resins and silica sequestering media, respectively. The purified water recovery in the present invention will not be adversely affected by design and/or operational deficiencies in the chemical precipitation softening system that may result in higher residual hardness and silica in the supernatant from the clarifier