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(54) Title: MEMS BASED MEMBRANE SENSOR SYSTEM AND METHOD OF USE

(57) Abstract: A MEMS sensor system for monitoring membrane elements in a membrane based water filtration plant having a remote telemetry unit (RTU), a SCADA, and a plurality of MEMS sensors for measuring pressure, flow rate, and conductivity. The water filtration plant has a train with a membrane vessel containing a plurality of membrane elements arranged in series creating interfaces between each membrane element. The MEMS sensors are located at the membrane element interfaces. A method of monitoring membrane elements in a membrane based water filtration plant using a plurality of MEMS sensors for measuring pressure, flow rate, and conductivity placed at the filtration plant membrane element interfaces.



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