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(71) Applicant: **FLUID EQUIPMENT DEVELOPMENT
COMPANY, LLC** [US/US]; 800 Ternes Drive, Monroe,
Michigan 48162 (US).

(72) Inventor: **OKLEJAS, Eli, Jr.**; 4750 Burke Road, Newport,
Michigan 48166 (US).

(74) Agent: **MIERZWA, Kevin G.**; HARNESS, DICKEY &
PIERCE, P.L.C., P. O. Box 828, Bloomfield Hills, Michigan
48303 (US).

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

(54) Title: METHOD AND SYSTEM FOR OPERATING A HIGH RECOVERY SEPARATION PROCESS

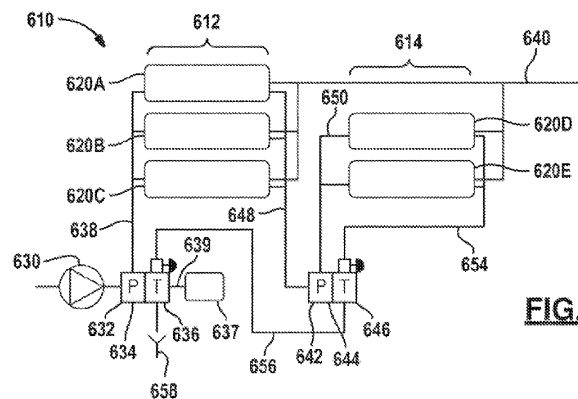


FIG. 6A

(57) Abstract: A reverse osmosis system and method includes a pump pressurizing a feed stream, a first and second membrane array that generates permeate and brine streams. A first energy recovery device uses first energy from the second brine stream to pressurize the first brine stream. A first and second auxiliary and bypass valves are associated with the first and second energy recovery device. A second energy recovery device uses second energy from the second brine stream to increase a second pressure of the feed stream. A first flowmeter generates a first flow signal for the first permeate stream. A second flowmeter generates a second flow signal for the second permeate stream. A third flowmeter generates a third flow signal for the second brine stream. A motor drives the first energy recovery device. A controller controls the in response to the flow signals.

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