

OPERATION SUPPORT DEVICE AND OPERATION SUPPORT METHOD

ABSTRACT

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An operation support device (100A) includes a computation unit 1 that: calculates cost of separation treatment that depends on deterioration of a separation membrane using a cleaning efficiency model (D5) expressing deterioration of the separation membrane relative to the number of cleaning events, the separation membrane being configured to remove removal target from sewage; calculates operation cost using the cost of separation treatment, cleaning cost for one cleaning event for the separation membrane, and replacement cost for one replacement event for the separation membrane, the operation cost being sum of the cost of separation treatment, cleaning cost for the separation membrane, and replacement cost for the separation membrane in an operation period of the separation membrane; determines, based on the operation cost, a first reference value used for determining whether to clean the separation membrane and a second reference value used for determining whether to replace the separation membrane; and calculates cleaning schedule and replacement schedule for the separation membrane using the first reference value and the second reference value determined.

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Fig. 1