

Title (en)

MONITORING THE INTEGRITY OF AN ULTRAFILTRATION MEMBRANE DURING FILTER OPERATION

Title (de)

ÜBERWACHUNG DER INTEGRITÄT EINER ULTRAFILTRATIONSMEMBRAN IM FILTERBETRIEB

Title (fr)

SURVEILLANCE DE L'INTÉGRITÉ D'UNE MEMBRANE D'ULTRAFILTRATION PENDANT LE FONCTIONNEMENT D'UN FILTRE

Publication

EP 4200063 A1 20230628 (DE)

Application

EP 20841704 A 20201221

Priority

EP 2020087492 W 20201221

Abstract (en)

[origin: WO2022135670A1] The invention relates to a method for monitoring the integrity of an ultrafiltration membrane (6) in a filter module (3a, 3b, 3c) of an ultrafiltration plant (1) for treating drinking water while the ultrafiltration plant is in filter operation, the plant having an untreated water inlet (2) and a filtrate outlet (8) between which the filter module (3a, 3b, 3c) is located. In said method, filtered drinking water flows from the filter module (3a, 3b, 3c) via a backflow preventer (Fa, Fb, Fc) to the filtrate outlet (8) which has a known opening pressure (pRFV) during filtrate flow, wherein the pressure difference (Δp_{AN}) between the pressure (Pzu) in the untreated water inlet (2) and the pressure (Pab) in the filtrate outlet (8) is determined, and a loss of integrity is assumed if the pressure difference (Δp_{AN}) is below a limit value (pRFV + T) which is greater than the opening pressure (pRFV).

IPC 8 full level

B01D 65/10 (2006.01); **B01D 61/20** (2006.01); **B01D 61/22** (2006.01)

CPC (source: EP)

B01D 61/20 (2013.01); **B01D 61/22** (2013.01); **B01D 65/104** (2013.01); **B01D 2313/18** (2013.01); **B01D 2313/19** (2013.01); **B01D 2315/18** (2013.01)

Citation (search report)

See references of WO 2022135670A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022135670 A1 20220630; CN 116457074 A 20230718; EP 4200063 A1 20230628

DOCDB simple family (application)

EP 2020087492 W 20201221; CN 202080107452 A 20201221; EP 20841704 A 20201221