

Title (en)

CHEMICAL CLEANING PROCEDURE FOR HEAT EXCHANGERS

Title (de)

VERFAHREN ZUR CHEMISCHEN REINIGUNG EINES WÄRMETAUSCHERS

Title (fr)

PROCÉDÉ DE NETTOYAGE CHIMIQUE POUR DES ÉCHANGEURS DE CHALEUR

Publication

**EP 3051247 A1 20160803 (EN)**

Application

**EP 13802435 A 20130924**

Priority

IB 2013058816 W 20130924

Abstract (en)

Applicable to exchangers made up of a set of tubes from a primary circuit, these tubes being separated by separation plates, said tubes and said plates being coated in use with deposits adhering to them of materials from erosions, corrosions and impurities in the secondary circuit, these materials particularly being formed of metals and metal oxides such as magnetite and metals such as copper, this procedure comprising a first phase of eliminating the metal oxides and in the event of the cleaning being done on materials containing copper, a second phase for decoppering and eliminating any copper compounds, in which a water solution, containing the following reagents is inserted into the steam generator: Citric acid, 0.5-10% in mass Ascorbic acid 0.3-5% in mass The process is carried out at a temperature of 20°C-70°C And the pH for the process starts at values of from 1 to 4.5

IPC 8 full level

**F22B 37/48** (2006.01); **F28G 9/00** (2006.01)

CPC (source: EP)

**F22B 1/023** (2013.01); **F22B 37/483** (2013.01); **F28G 9/00** (2013.01)

Citation (search report)

See references of WO 2015044709A1

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

DOCDB simple family (publication)

**EP 3051247 A1 20160803**; **EP 3051247 B1 20171115**; ES 2659226 T3 20180314; WO 2015044709 A1 20150402

DOCDB simple family (application)

**EP 13802435 A 20130924**; ES 13802435 T 20130924; IB 2013058816 W 20130924