

Title (en)

METHOD FOR DECONTAMINATING SURFACES

Title (de)

VERFAHREN ZUR OBERFLÄCHEN-DEKONTAMINATION

Title (fr)

PROCÉDÉ DE DÉCONTAMINATION DE SURFACES

Publication

EP 2417606 A1 20120215 (DE)

Application

EP 10795259 A 20101201

Priority

- EP 2010068602 W 20101201
- DE 102009047524 A 20091204

Abstract (en)

[origin: CA2755288A1] The invention relates to a method for chemically decontaminating the surface of a metal component of the primary circuit of a pressurized-water reactor, said surface comprising an oxide layer. The method is divided into two process stages and is further implemented as follows: - in the first process stage, at least one treatment cycle is performed, comprising an oxidation step, a reduction step, and a subsequent first decontamination step, wherein the component is treated in the oxidation step with an aqueous solution comprising an oxidizing agent, which converts trivalent chrome present in the oxide layer into hexavalent chrome; the component is treated in the reduction step with an aqueous solution comprising a reducing agent for reducing excess oxidation agent from the oxidation step; the component is treated in the first decontamination step with an aqueous solution comprising exclusively or predominantly at least one decontamination acid that forms no antisoluble deposits with metal ions present in the solution, in particular bivalent metal ions; and the solution is fed through an ion exchanger for removing metal ions present in the solution, which metal ions originate from the oxide layer and/or the base metal of the component, - in the second process stage, at least one treatment cycle is performed, comprising a second decontamination step, wherein the component is treated with an aqueous solution comprising exclusively or predominantly oxalic acid as a decontamination acid.

IPC 8 full level

G21F 9/00 (2006.01); **C22B 60/02** (2006.01); **G21F 9/12** (2006.01); **G21F 9/28** (2006.01); **G21F 9/30** (2006.01)

CPC (source: EP US)

G21F 9/004 (2013.01 - EP US); **G21F 9/12** (2013.01 - EP US); **G21F 9/28** (2013.01 - EP US); **G21F 9/30** (2013.01 - EP US)

Citation (search report)

See references of WO 2011067271A1

Cited by

CN108780669A

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

DOCDB simple family (publication)

DE 102009047524 A1 20110609; CA 2755288 A1 20110609; CN 102405500 A 20120404; EP 2417606 A1 20120215; EP 2417606 B1 20130220; ES 2404895 T3 20130529; JP 2013513098 A 20130418; JP 5602241 B2 20141008; KR 101309609 B1 20130917; KR 20120057568 A 20120605; TW 201131581 A 20110916; US 2012138086 A1 20120607; WO 2011067271 A1 20110609; ZA 201106436 B 20120829

DOCDB simple family (application)

DE 102009047524 A 20091204; CA 2755288 A 20101201; CN 201080017041 A 20101201; EP 10795259 A 20101201; EP 2010068602 W 20101201; ES 10795259 T 20101201; JP 2012541479 A 20101201; KR 20117026921 A 20101201; TW 99141882 A 20101202; US 201213371891 A 20120213; ZA 201106436 A 20110902