Title (en)

COAL-FIRED POWER STATION AND METHOD FOR OPERATING THE COAL-FIRED POWER STATION

Title (de)

KOHLEKRAFTWERK UND VERFAHREN ZUM BETRIEB DES KOHLEKRAFTWERKES

Title (fr)

CENTRALE AU CHARBON ET PROCÉDÉ D'EXPLOITATION DE LA CENTRALE AU CHARBON

Publication

EP 2260236 A2 20101215 (DE)

Application

EP 09710549 A 20090210

Priority

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- DE 102008009129 A 20080214

Abstract (en)

[origin: CA2715625A1] In a method for operating and controlling/regulating a power station comprising a coal-fired steam generator (11), the steam generator (11) of which is rated for the steam parameters achievable by the heat transfer onto the steam mass flow upon coal firing in the steam generator (11) carried out using combustion air, a solution is to be created, which enables the operation of coal-fired power stations rated for air operation utilizing a firing of the fuel carried out according to the oxy-fuel process in the firing chamber of the steam generator of the coal-fired power station. This is achieved in that a firing of the fuel containing coal is carried out in the steam generator (11) according to the oxy-fuel process utilizing approximately pure oxygen containing more than 95% by volume, and recirculated flue gas containing a high amount of CO2, such that the mass flows of all fuel flows supplied to the coal-fired burners (10) and to the steam generator (11), and the combustion gas, carrier gas, and process gas flows from the combustion oxygen and/or recirculated flue gas are configured and adjusted to each other with respect to the respective composition ratio thereof of oxygen and/or flue gas such that the heat transfer occurring in the steam generator by means of flame radiation, gas radiation, and convection onto the steam mass flow is maintained equal overall in the steam/water cycle as compared to air combustion, in particular, that the same steam parameters are obtained.

IPC 8 full level

F22B 1/18 (2006.01)

CPC (source: EP US)

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Citation (search report)

See references of WO 2009100881A2

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