Title (en)
SYSTEM FOR EVACUATING THE RESIDUAL HEAT FROM A NUCLEAR REACTOR

Title (de)
SYSTEM ZUR EVAKUIERUNG DER RESTWÄRME AUS EINEM KERNREAKTOR

Title (fr)
SYSTÈME D'ÉVACUATION DE LA CHALEUR RÉSIDUELLE D'UN RÉACTEUR NUCLÉAIRE

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Application
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Abstract (en)
[origin: WO2008090446A1] The invention relates to a system (1) for evacuating the residual heat from a nuclear reactor (2), wherein the residual heat is evacuated by irradiation from the main tank (3) of the nuclear reactor towards a ring of substantially U-shaped tubes (15), inside which external air circulates in natural circulation and which are arranged circumferentially around the tank (3). The tubes (15) are grouped together in modules (11), each of which is made up of a set of U-shaped tubes (15) inserted inside one another with respective side-by-side branches (16) facing the tank (3) and arranged on opposite sides of a common central axis (X) and laterally separated from one another by empty spaces. A radiant heat reflecting wall (30), which also constitutes a structure (33) for containing an insulation filling (34) of the nuclear-reactor well (5), is set behind the tubes (15) with respect to the tank (3) to reflect back onto the tubes (15) the radiant heat passing through the empty spaces between one tube (15) and another. The reflecting wall (30) is shaped in such a way as to be partially inserted between the branches (16) of the tubes (15) to define a longitudinal channel (31) set substantially around each branch (16).

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