

CPC COOPERATIVE PATENT CLASSIFICATION

G PHYSICS (NOTES omitted)

NUCLEONICS

G21 NUCLEAR PHYSICS; NUCLEAR ENGINEERING

G21D NUCLEAR POWER PLANT

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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| <p>1/00 Details of nuclear power plant (control G21D 3/00)</p> <p>1/003 . {Nuclear facilities decommissioning arrangements (decontamination arrangements, treating radioactively contaminated material G21F 9/00)}</p> <p>1/006 . {primary side of steam generators (secondary side of steam generators F22B 1/00, F22B 35/00 or F22B 37/00)}</p> <p>1/02 . Arrangements of auxiliary equipment</p> <p>1/04 . Pumping arrangements (within the reactor pressure vessel G21C 15/24; electrodynamic pumps H02K 44/02)</p> <p>3/00 Control of nuclear power plant (control of nuclear reaction in general G21C 7/00)</p> <p>3/001 . {Computer implemented control}</p> <p>3/002 . . {Core design; core simulations; core optimisation}</p> <p>3/004 . . {Fuel shuffle simulation; fuel shuffle optimisation}</p> <p>3/005 . . {Thermo-hydraulic simulations}</p> <p>3/007 . {Expert systems}</p> <p>3/008 . {Man-machine interface, e.g. control room layout}</p> <p>3/02 . Manual control</p> <p>3/04 . Safety arrangements (emergency protection of reactor G21C 9/00)</p> <p>3/06 . . responsive to faults within the plant (in the reactor G21C 9/00)</p> <p>3/08 . Regulation of any parameters in the plant</p> <p>3/10 . . by a combination of a variable derived from neutron flux with other controlling variables, e.g. derived from temperature, cooling flow, pressure</p> <p>3/12 . . by adjustment of the reactor in response only to changes in engine demand</p> <p>3/14 . . . Varying flow of coolant</p> <p>3/16 . . . Varying reactivity</p> <p>3/18 . . by adjustment of plant external to the reactor only in response to change in reactivity</p> <p>5/00 Arrangements of reactor and engine in which reactor-produced heat is converted into mechanical energy</p> <p>5/02 . Reactor and engine structurally combined, e.g. portable</p> <p>5/04 . Reactor and engine not structurally combined</p> <p>5/06 . . with engine working medium circulating through reactor core</p> | <p>5/08 . . with engine working medium heated in a heat exchanger by the reactor coolant</p> <p>5/10 . . . Liquid working medium partially heated by reactor and vaporised by heat source external to the core, e.g. with oil heating</p> <p>5/12 . . . Liquid working medium vaporised by reactor coolant</p> <p>5/14 and also superheated by reactor coolant</p> <p>5/16 superheated by separate heat source</p> <p>7/00 Arrangements for direct production of electric energy from fusion or fission reactions (obtaining electric energy from radioactive sources G21H 1/00)</p> <p>7/02 . using magneto-hydrodynamic generators {(MHD-generators with thermodynamic cycles F02C 7/00; magneto-hydrodynamic generators H02K 44/08)}</p> <p>7/04 . using thermoelectric elements {or thermoionic converters} (structural combination of fuel element with thermoelectric element {or with thermoionic converters} G21C 3/40 {, G21H 1/10}; thermoelectric elements per se H01L 35/00, H01L 37/00)</p> <p>9/00 Arrangements to provide heat for purposes other than conversion into power, e.g. for heating buildings</p> |
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