

CPC COOPERATIVE PATENT CLASSIFICATION

G21D NUCLEAR POWER PLANT (electric or magnetic analogue computers, e.g. simulators, for nuclear physics [G06G 7/54](#))

1/00	Details of nuclear power plant (control G21D 3/00)	7/02	• using magneto-hydrodynamic generators {(MHD-generators with thermodynamic cycles F02C 7/00 ; magneto-hydrodynamic generators H02K 44/08)}
1/003	• {Nuclear facilities decommissioning arrangements (decontamination arrangements, treating radioactively contaminated material G21F 9/00)}	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 <i>per se</i> H01L 35/00 , H01L 37/00)
1/006	• {primary side of steam generators (secondary side of steam generators F22B 1/00 , F22B 35/00 or F22B 37/00)}		
1/02	• Arrangements of auxiliary equipment		
1/04	• Pumping arrangements (within the reactor pressure vessel G21C 15/24 ; electrodynamic pumps H02K 44/02)		
3/00	Control of nuclear power plant (control of nuclear reaction in general G21C 7/00)	9/00	Arrangements to provide heat for purposes other than conversion into power, e.g. for heating buildings
3/001	• {Computer implemented control}	2010/00	Protection of plant or environment from mutual hazards : means for monitoring the effects of plant or environment upon each other
2003/002	• . {Core design; Core simulations}		
2003/004	• . {Fuel shuffle simulations}		
2003/005	• . {Thermo-hydraulic simulations}		
2003/007	• {Expert systems}		
3/008	• {Man-machine interface, e.g. control room layout}		
3/02	• Manual control		
3/04	• Safety arrangements (emergency protection of reactor G21C 9/00)		
3/06	• . responsive to faults within the plant (in the reactor G21C 9/00)		
3/08	• Regulation of any parameters in the plant		
3/10	• . by a combination of a variable derived from neutron flux with other controlling variables, e.g. derived from temperature, cooling flow, pressure		
3/12	• . by adjustment of the reactor in response only to changes in engine demand		
3/14	• . . Varying flow of coolant		
3/16	• . . Varying reactivity		
3/18	• . by adjustment of plant external to the reactor only in response to change in reactivity		
5/00	Arrangements of reactor and engine in which reactor-produced heat is converted into mechanical energy		
5/02	• Reactor and engine structurally combined, e.g. portable		
5/04	• Reactor and engine not structurally combined		
5/06	• . with engine working medium circulating through reactor core		
5/08	• . with engine working medium heated in a heat exchanger by the reactor coolant		
5/10	• . . Liquid working medium partially heated by reactor and vaporised by heat source external to the core, e.g. with oil heating		
5/12	• . . Liquid working medium vaporised by reactor coolant		
5/14	• . . . and also superheated by reactor coolant		
5/16	• . . . superheated by separate heat source		
7/00	Arrangements for direct production of electric energy from fusion or fission reactions (obtaining electric energy from radioactive sources G21H 1/00)		