The Fast Breeder Reactor

Need? Cost? Risk?

Edited by

Colin Sweet

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Abbreviations

Used in the Text

ADM	atomic demolition munitions
AEA	Atomic Energy Authority (UK)
AEB	Atomic Energy Board (Canada)
AEC	Atomic Energy Commission (USA)
AFB	atmospheric fluidised bed
AGR	advanced gas-cooled reactor
BGC	British Gas Corporation
BNFL	British Nuclear Fuels Ltd
BWR	boiling water reactor
CCG	combined cycle gasification
CDFR	Commercial Demonstration Fast Reactor
CEGB	Central Electricity Generating Board
CERN	<i>Conseil Européen pour la Recherche Nucléaire</i> (European Organisation for Nuclear Research)
CFR (-1)	Commercial Fast Reactor (-1)
CHP	combined heat and power
CONAES	Committee on Nuclear and Alternative Energy Systems (USA)
EAS	Economic Assessment Service (of IEA)
EEC	European Economic Community
EPCD	Energy Policy Consultative Document
ETSU	Energy Technology Support Unit
FBC	fluidised bed combustion
FBR	fast breeder reactor
FCI	fuel-coolant interaction
FGD	flue-gas desulphurisation
GDP	gross domestic product
GNP	gross national product
HSE	Health and Safety Executive (UK)
HT(G)R	high-temperature (gas-cooled) reactor
HWR	heavy-water reactor

IAEA	International Atomic Energy Agency
ICRP	International Commission on Radiological Protection
IEA	International Energy Agency
IIASA	International Institute of Applied Systems Analysis
INFCE	International Nuclear Fuel Cycle Evaluation
JET	Joint European Torus
LMFBR	liquid-metal fast breeder reactor
LWR	light-water reactor
MRC	Medical Research Council
NCB	National Coal Board
NII	Nuclear Installations Inspectorate (UK)
NNC	National Nuclear Corporation
NPT	Non-Proliferation Treaty (of nuclear weapons)
NRC	Nuclear Regulatory Commission (USA)
NRPB	National Radiological Protection Board
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of Petroleum-Exporting Countries
PERG	Political Ecology Research Group
PF	pulverised fuel
PFB	pressurised fluidised bed
PFR	Prototype Fast Reactor
PNE	peaceful use of nuclear explosives
PWR	pressurised water reactor
RCEP	Royal Commission on Environmental Pollution
R & D	research and development
SALT	Strategic Arms Limitation Treaty
SNG	synthetic natural gas
SSEB	South of Scotland Electricity Board
THORP	Thermal Oxide Reprocessing Plant
UKAEA	United Kingdom Atomic Energy Authority
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation