

HISTORICAL REVIEW OF NUCLEAR ENERGY IN SERBIA

Dragomir Bondžić

IZMEĐU AMBICIJA I ILUZIJA

Nuklearna politika Jugoslavije
1945–1990

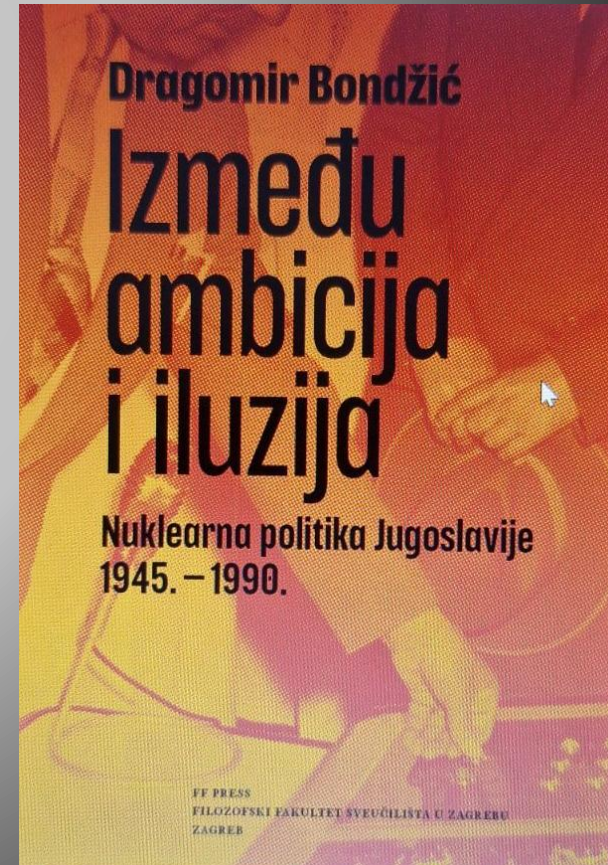


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Između ambicija i iluzija

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NUCLEAR PROGRAM IN SOCIALIST YUGOSLAVIA

- Started in the late 1940s
- Launched by Yugoslav communist authorities' will to develop and ambitions
- Coordinated by high federal political, economy and secret police leaders (Tito, A. Ranković, E. Kardelj, M. Đilas, S. Vukmanović, B. Kidrič...)
- Start "from scratch"
- Yugoslavia: a poor, economically and scientifically underdeveloped country, devastated by war, faced with revolution
- No institutional base and scientific heritage
- Modest staff base:
 - Pavle Savić (1909-1994) in Belgrade
 - Ivan Supek (1915-2007) in Zagreb
 - Antun Peterlin (1908-1993) in Ljubljana
 - Stevan Dedijer (1911-2004) in Belgrade ...



THE RISE OF NUCLEAR SCIENCES IN 1950s

- Establishment of the institutes
 - Institute in Vinča 1948
 - Institute in Ljubljana 1949
 - Institute in Zagreb 1950
- 1955 – Federal Nuclear Energy Commission
- 1955 – Participation on Conference in Geneva
- Strong control by state authorities and police
- Intensive search for uranium – “uranium rush”
- Personnel training and young scientists rise
- Intensive international cooperation with East and West (Great Britain, France, Norway, Sweden, Switzerland, USA, USSR, Poland, IAEA)
- Cold War Diplomacy – acquisition of nuclear technology in both East and West



... 25 NAUČNIH RADNIKA BILO JE ILI SE SADA NALAZI U 16
INOSTRANIH INSTITUTA I LABORATORIJA U 8 ZEMALJA

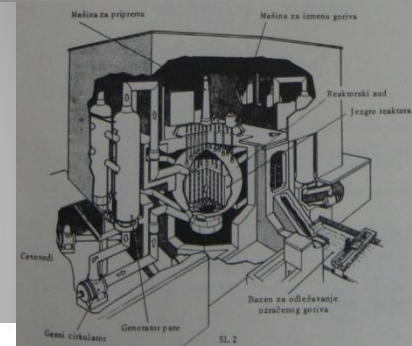
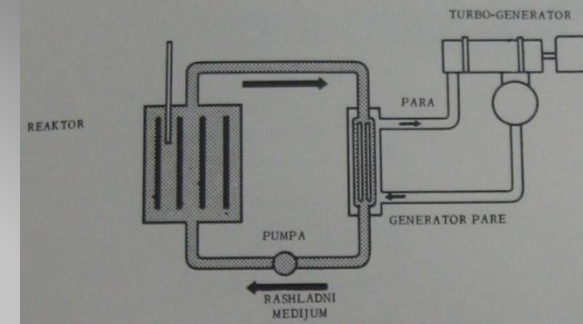
ACHIEVEMENTS AND DECLINE 1960s

- Construction of plants, devices, instruments
 - 1958 – RB Reactor in Vinča
 - 1959 – RA Reactor in Vinča (USSR)
 - 1962 – Cyclotron in Zagreb
 - 1962 – TRIGA reactor in Ljubljana (USA) ...
- Gunnar Randers impressions 1952: “only thing holding Yugoslavia back from rising to the technical level achieved by his own highly successful nuclear program was money”
- 1960s – Political and economic crisis; weakening of the Federation; decentralization of the State;...
- 1960s – Nuclear program budget cuts
- 1965 – Shutting down the Kalna uranium mine
- 1971 – Shutting down the Federal Nuclear Energy Commission



NUCLEAR ENERGY APPLICATION AND “KRŠKO” POWER PLANT

- Late 1950s – Attitude advocated the development of nuclear energy and construction of nuclear power plants prevailed against fundamental sciences
- During the 1960s - Analyses, projects, plans, negotiations for the construction of a nuclear power plant in Yugoslavia
- Nuclear plant „Krško“, Slovenia and Croatia, Westinghouse (USA)
 - 1971 – contract
 - 1974 – start of construction
 - 1983 – commissioning



NUCLEAR ENERGY PLANS 1970s/1980s

- 1974 – Reawakening of nuclear ambitions after Indian nuclear test
- Obstacles: 1974 Constitution, confederalization, political conflicts between republics and nations; economic crisis; self-management...
- 1978 – Founding of Nuclear Energy Commission of the Federal Executive Council and commissions in republics and provinces
- 1982 – “Basics of nuclear energy development policy in Yugoslavia until 2000” – plans for construction of 12 Nuclear plants in Yugoslavia until 2000 with 2000 MW of power
- 1982 – “Agreement on a plan for the development and application of nuclear energy in Yugoslavia until the year 2000”
- Technical preparations, legal regulation, international cooperation, locations-Danube (Bogojevo, Novi Sad, Kostolac...)

RISE AND FALL IN LATE 1980s

- 1985 – Agreement on the choice of a unique fuel cycle and type of series of nuclear power plants
- 1985 – International competition for choice of a unique fuel cycle and type of series of nuclear power plants
- Antinuclear campaign and public debates on the nuclear plants from the early 1980s
- 1986 – Chernobyl disaster – turning point
- 1989 June 16 – “Law on the prohibition of the construction of nuclear power plants in the SFRY”

