

India's Present Nuclear Power Programme and Future Directions

R. B. Grover

Director, Strategic Planning Group

Department of Atomic Energy, Mumbai, INDIA

The economic growth and the concomitant growth in energy requirement in the country have led to studies mandating a larger role for nuclear energy in India. At the same time, worldwide there is a resurgence of interest in nuclear power and available uranium resources are expected to come under stress. Nuclear industry in India would need to factor this while deciding its strategy for growth in nuclear energy particularly the choice of type of reactors and the fuel cycle.

Domestic uranium resources in India are very modest and therefore, nuclear energy programme in India, right from its inception has been based on a closed fuel cycle approach. At present, 15 Pressurized Heavy Water Reactors (PHWRs) are in operation, 3 are under construction and more are planned for construction in the future. Technologies for closing the fuel cycle have been developed and a Prototype Fast Breeder Reactor is under construction. An Advanced Heavy Water Reactor has been designed to get industrial scale experience in utilization of thorium and its construction will be launched after obtaining all regulatory approvals. In parallel, programmes to develop High Temperature Reactors and Accelerator Driven Sub-critical Systems have also been launched. This talk will give a brief presentation of India's nuclear power programme.

Ravi B. Grover: Biographical notes

R B Grover is a nuclear engineer and is concurrently working as Director, Homi Bhabha National Institute (HBNI), Director, Strategic Planning Group (SPG), Department of Atomic Energy (DAE), and Director, Knowledge Management Group, Bhabha Atomic Research Centre (BARC), DAE, India.

During the first 25 years of his career, Dr Grover worked in the areas of reactor thermal-hydraulics, safety analysis and process design of systems and equipment. For the past ten years, he has been working on issues related to technology transfer, energy planning, extra-mural funding and human resource development.

Dr Grover is a Fellow of the Indian National Academy of Engineering. He studied mechanical engineering at Delhi College of Engineering, nuclear engineering at BARC Training School and received Ph.D. from the Indian Institute of Science, Bangalore.