

## **AERB is independent, not DAE's extended arm: SS Bajaj**

Q&A with Chairman, Atomic Energy Regulatory Board



Independence of nuclear regulator is being debated in the country. Besides, the very need for nuclear capacity addition is being questioned. In an exclusive interview with *Sanjay Jog*, the Atomic Energy Regulatory Board (AERB) chairman **SS Bajaj** spoke on a range of issues.

**Post Fukushima nuclear accident in 2011, political parties, NGO sand experts are questioning the very need for nuclear power projects in India. As a regulator what is your take in this regard?**

AERB is neither for nuclear power nor against it; or for that matter for any other application of nuclear energy or radiation application. As a regulator, AERB's mandate is to ensure that activities involving ionizing radiation are conducted safely. It is for the Government and its energy planners to work out the energy mix required for the country, taking into account society's aspirations with regard to standards of living and associated energy needs on one hand and available sustainable energy resources on the other. Sustainability, of course, includes secure availability of resources as well as environmental impact of continued utilization of the resource.

**How Indian nuclear power plants are safe?**

After the Fukushima nuclear accident, AERB had undertaken exhaustive safety assessments of all operating nuclear power plants in the country, in the light of the lessons learnt from the accident. These assessments were led by a high-level committee with independent experts. The conclusion was that the plants have sound designs and operating practices to cope with design basis events including external events. However, to add further margins and robustness, particularly to cope with beyond design-basis situations, additional safety upgrades have been recommended for implementation in a phased manner. Some of these upgrades have already been put in place, while others are in progress for completion in an agreed time frame.

**What major changes are being carried out in safety applications in nuclear plants as directed by AERB?**

Post Fukushima accident, AERB has recommended certain additional safety enhancements to further augment the safety of Indian nuclear power plants such as enhancing the reliability of cooling through external hook up points, strengthening backup power supply, strengthening provision for monitoring of critical parameter under prolonged loss of power, enhancing severe accident management programme, training and mock-up exercises of operating personnel, creation of emergency monitoring facility capable of withstanding severe flood, cyclone, earthquake.

These recommendations are being implemented in the nuclear power plants in a phased manner. AERB is continuously monitoring the progress of implementation of these safety enhancements. Similar time bound implementation for the identified safety enhancements after Fukushima accident is being carried out in a phased manner in all operating reactors worldwide.

**At the AERB level, what is the current status of Kudankulam project, Jaitapur project and couple of other projects lined up for development?**

AERB is presently reviewing the test results at current stage of commissioning for various systems of Kudankulam Nuclear Power Project-Unit 1&2. With regard to Jaitapur Project as well as Gorakhpur Project, the site evaluation is under review by AERB.

With respect to the upcoming Kudankulam project, AERB has a system of quality checks, testing and reviews specified and enforced by it. As per the well-established regulatory process of AERB, commissioning stage of a nuclear power plant (NPP) involves conducting series of checks and tests, system wise and also in an integrated manner to ensure that all the systems perform as per the design intent. The results of various tests conducted at each stage are reviewed in AERB. Only after satisfactory review, permission for proceeding to subsequent stage is given.

**Experts and NGOs are questioning the very independent status of AERB. What are your views?**

It is a wrong notion that AERB is an extended arm of Department of Atomic Energy (DAE). AERB is independent of DAE while reporting to the Atomic Energy Commission (AEC). Reporting of AERB to Atomic Energy Commission, in practical terms, comprises submission of Annual Report of AERB and the approval of the annual budget. AERB is functioning under the legislative framework of the Atomic Energy Act 1962 and the rules made there under; where adequate provisions have been made for regulation of safety. The existing arrangement has never come in the way of effective functioning of AERB as independent regulator.

This is evidenced by the large number of enforcement actions taken by AERB over the years. In extreme situations, when found necessary, AERB has even ordered shutdown of plants or suspension of activities in projects.

Nevertheless, considering the current international trend for separating the legislative framework related to promotional and regulatory aspects and to further enhance the legal status of AERB, the Government has introduced the 'Nuclear Safety Regulatory Authority Bill' (NSRA Bill) in the Parliament in 2011 to further enhance the legal status of AERB.

**Will India be in a position to achieve proposed nuclear capacity addition up to 63,000 MW by 2032 considering the opposition and problems in land acquisition and other issues?**

AERB cannot comment on this. However, AERB is geared to take up the challenge of safety review and regulation of increased number and diversity of nuclear reactors envisaged in the programme and will ensure that requirements of safety are upheld.