

## From New Delhi by Ramtanu Maitra

### A whiff of hope for nuclear power

*The latest success with the experimental breeder reactor provides a new opportunity for a power-starved nation.*

On July 12, India's experimental Fast Breeder Test Reactor (FBTR) was formally synchronized with the power transmission grid for the first time. The event was hailed by the engineers at the Indira Gandhi Center for Atomic Research (IGCAR) at Kalpakam, in the state of Tamil Nadu, as a "major milestone" in India's three-decades-old ailing nuclear power program.

The experimental FBTR had gone critical in 1985, and the reactor's synchronization with the power grid is the culmination of 12 years of efforts. The delay, according to authorities, was caused by several major technical problems with the reactor and ancillary equipment. The experimental reactor is fuelled by a mixture of plutonium and uranium carbides, and is now working at a level of 11 thermal megawatts.

The mixed fuel has been fabricated indigenously at the Bhabha Atomic Research Center (BARC), India's premier nuclear research center, and is considered the forerunner to the second stage of India's nuclear program. This stage involves utilization of plutonium, generated by the thermal reactors developed in the first stage, in the fuel-generating breeder reactors. In the first stage, atomic energy authorities had developed CANDU-type natural uranium-fuelled reactors.

On the face of it, given the power generation capacity of the experimental reactor, the achievement seems small. But, the technological success attained in developing a plutonium breeder reactor is of great significance. Dr. Placid Rodrigues, the director of IGCAR, has termed it a historic

achievement which will pave the way for the country's first 500 MW prototype fast breeder reactor (PFBR), a step prior to developing commercially viable breeder reactors locally.

In addition to the technological achievement and future prospects this event signals, the news means that India's nuclear power program, which had been in a rut for years, is not quite dead. The success suggests that it is worth saving this ailing sector now, particularly in light of the growing power shortages in the country and the useful role that nuclear power can play. In fact, the basic premise on which the nuclear power program was launched in the 1960s by the late Homi Bhabha, was to establish an indigenously developed, unlimited power generation source.

The question is: Will New Delhi seize upon this opportunity to give the nuclear program the pride of place it deserves in the long-term national power development program? It is an important question which needs to be answered. After years of research, and undisputed success in this area, India's nuclear power installation remains a measly 1,840 MW. The failure to provide people with the power they deserve is reflected widely in India's poverty.

The other reason that this question needs to be answered, is that India has been bullied too often into a corner on the nuclear issue. The U.S.S.R., before its breakup, had promised India a sale of two 1,000-megawatt VVER reactors. Despite years of negotiations, it is not yet clear whether Russia has the courage to defy the United States, which has objected to the sale.

In early July, at the confirmation hearing before the U.S. Senate Foreign Relations Committee, Karl F. Inderfurth, nominated to be assistant secretary of state for South Asia, made it clear that he would bring up the reactor-sale issue with Russia.

So far, Delhi has remained quiet, continuing to get brow-beaten and deprived of the fruits of the sale of legitimate products. The U.S. Department of Commerce has already accused 13 foreign firms of being "engaged in proliferation of weapons of mass destruction." Among them are four Indian entities, against which export controls have been slapped, and the Commerce Department's William Reinsch said, "More will be named."

In addition, a CIA report has concluded that India's missile program is not wholly indigenous, contrary to what New Delhi claims. The report also accuses India and China of supplying Iran with equipment to help it develop chemical weapons. It can be safely assumed that all these charges were designed to put an export control ban on more entities belonging to India and some other countries. Too often, the bans are imposed on entities which play an important role in nuclear and other high-tech research development.

It would be naive, if not suicidal, to assume that the bullying will stop soon, if ever. It is also true that New Delhi has too often used "foreign bullying" as an excuse to keep the nuclear power program undermined. Under the Eighth Plan, which ended only recently, the nuclear capacity addition target was 1,100 MW, an amount considered a drop in the bucket compared to what the country needs. But that target, too, remained distant, and the anticipated achievement was only 440 MW, because budget cuts were imposed to satisfy the "accountants" whose goal was to lower India's fiscal deficit.