

“From Fission to Fusion: The story of India’s Atomic Energy Programme”, by M.R. Srinivasan, Viking (Penguin Books India (P) Ltd.),Rs. 495/-, pg. xviii + 318, ISBN 0-67-004924-7 (2002).

“The Italian navigator has reached the New World”. This is how the news of the world’s first controlled nuclear chain reaction was relayed in December 1942. The Italian in question was the famous Italian émigré physicist, Enrico Fermi who at the University of Chicago had demonstrated how natural uranium could be split and the reaction sustained. And this one discovery would arguably be rated as one which was as important as the “discovery” of the New World by another Italian some four and half centuries ago. Just as the Americas were “conquered” by the Europeans, so too the unbelievably powerful forces locked up in the atomic nucleus were unleashed by the scientists. The world got a gruesome demonstration in the form of Hiroshima and Nagasaki in 1945 and we were ushered into a new era, the “atomic age”.

The founding fathers of the Indian nation were well acquainted with the importance of this “genie” which had been let out. In the debates of the constituent Assembly, as early as 1948, we see passionate arguments for and against atomic energy. The Atomic Energy Commission (A.E.C) was set up on 15th August, 1948, with H.J. Bhabha as its chairman. Bhabha’s proximity to Nehru and Nehru’s interest in science ensured that the atomic energy complex acquired a considerable degree of power and influence in the 50’s. The details of the atomic energy program were always kept secret to the extent that apart from the broad outlines, not even the Parliament was privy to the workings of the complex. A series of scientist-bureaucrats one of them being M.R. Srinivasan, presided over the huge undertaking.

An engineer by training, he joined the atomic energy complex in 1955 and held many important posts including Chairman, AEC, Secretary Dept. of Atomic Energy and finally Member, Planning Commission. He was closely associated with the nuclear energy program and this book under review is his version of the history of the programme.

Srinivasan traces in somewhat excruciating detail the building of the various reactors and atomic power plants across the country. The details are of course useful, but they detract from the major issues, which he conveniently skirts or does not provide any insights into. Thus, for instance, the first so-called “Peaceful Nuclear Explosion” in Pokharan in 1974 or the more belligerent explosions in 1998 are discussed, though not in sufficient detail. When he does talk about controversial issues, he gives us the “official” line. He says, for instance, “There was no mention of national security or the acquisition of nuclear weapons [in the workings of the atomic energy establishment]”. This is plainly false as has been convincingly demonstrated by Itty Abraham in his book “The Making of the Indian Atomic Bomb”. Abraham shows that the intricate linkage between peaceful and military uses of atomic energy were not lost on the members of the Constituent

Assembly. It is of course, naïve to think that the atomic energy establishment and their political masters were unaware of these “synergies”.

Srinivasan’s book reads like an official chronology of the atomic energy program in India. The story of the impressive increase in the nuclear power generating capacity and the travails of building reactors with indigenous technology is competently related in the book. What however is irritating is curious hagiographic tone of the whole chronicle. The story of Srinivasan getting the Padma Shri and not a more prestigious award, the presenting of a bouquet of flowers to the Prime Minister by his wife and his oratorical skills during a public meeting on the Kaiga project are but a few examples of this self important tenor of the book.

The history of atomic energy in India is unfortunately not as straightforward and “pretty” as made out by Srinivasan. The controversy regarding safety at Indian Rare Earths plant in Kerala, the devastating effects on the health of the tribals in the Jadugada mines in Jharkhand, the safety of nuclear waste and of course the long term effects of explosions in Pokharan are all part of the this history. The small, but growing anti-nuclear movement in the country in the wake of the 1998 explosions is also significant. But none of these seem important enough for the author to comment on. He is content in telling us “The official story”. But then, given that here is a man who spent all his life with an organisation, it would be unfair to expect otherwise. The technocratic view is all pervasive in the book. Politics, society and people are unfortunately missing in this scenario.

The sub-continent is the most dangerous place on the globe at the moment. Two nuclear powers in an eyeball to eyeball confrontation is clearly not a happy state of affairs. Given the general lack of safeguards in both countries and the belligerency of the current political actors, an accident is just waiting to happen. The “genie” that was released by Fermi could cause unbelievable and unimaginable devastation. Unfortunately, like the generals in Kubrick’s memorable classic film “Dr. Strangelove or How I learnt to love the Bomb”, the scientific and defence establishment thinks that a nuclear war is winnable. Hiroshima, Chernobyl, Three Mile Island, will all seem insignificant in comparison to the devastation a nuclear engagement in South Asia will cause. This may not be as improbable as it seems. The pointers are all there to warn us.