

India needs proper N-waste disposal tech

By Rashme Sehgal

New Delhi, May 10: On February 21, 2008, a new tailings pipeline burst near Jaduguda, caused a uranium mill tailings spill that reached the homes of workers working in these mines. This was preceded by a similar accident which took place in December 2006 in which the tailings spread into the river Subarnarekha, forcing local villagers to hold a blockade against the spill.

This is just one of a series of accidents in which uranium miners face radiological exposure. A survey conducted of 2,118 households living within a 2.5-km radius from the mines and another of 1,956 households living 30 km from the mines by the Nobel Peace Prize winning organisation Physicians for Prevention of Nuclear War in association with the Jharkhandi Organisation Against Radiation has shown higher rates of physical deformities and cancer amongst these villagers. These findings only serve to reinforce earlier findings of an expert from the Research Reactor Institute at Kyoto University who showed that contamination from the uranium mines had spread to the soil surrounding the tailings ponds which contained uranium. The external gamma dose rates were also higher. Nuclear experts state that the present debate on the India-US nuclear deal has seldom taken up the extremely challenging issue about how to dispose off the huge amounts of radioactive waste that are being generated in the country.

Physicist Raja Raman from JNU points out that while the Department of Atomic Energy has set the goal of producing 20,000 MW of electricity from nuclear energy-driven power plants by 2020 and enough plutonium to cover almost 100 warheads, it has still to find a permanent site to store the nuclear waste that is currently being generated. "At present, high-level waste is being kept in specialised caskets that are made of porcelain and glass which are kept in water tanks. These are specially designed to ensure that the material does not leak," Raman pointed out. Shyam Saran, the Prime Minister's special envoy, also confirmed that the nuclear establishment was using a "special kind of vitrified glass in which to keep this high-level waste".

Bangalore-based physicist M.V. Ramana believes the search is still on to find a permanent waste disposal site but due to the veil of secrecy, there is no official disclosure about radioactive wastes in India. He, however, estimates that India's high-level waste from preprocessing spent nuclear fuel produced so far is over 16,000 metric tones.

The DAE was exploring the Sanawada village in Pokhran district in Rajasthan under the guise of exploring granite. The villagers got suspicious and have started an agitation against them. Earlier, Mr Ramana said, they were keen to deposit this waste in undivided Madhya Pradesh's granite belt but then chief minister Digvijay Singh refused to give them land. They even considered Karnataka's Kolar gold mines but gave it up when they found it had water he said. These physicists believe most of the high-level waste is being stored at Tarapore and Kalpakkam. But the waste keeps shifting from one plant to another, thereby exposing the workers working in these plants, they assert.