

**GOVERNMENT OF INDIA  
ATOMIC ENERGY  
LOK SABHA**

UNSTARRED QUESTION NO:1486

ANSWERED ON:30.11.2011

RADIOACTIVITY

Choudhary Shri Bhudeo

**Will the Minister of ATOMIC ENERGY be pleased to state:**

- (a) whether the Government has commissioned/proposes to commission the work of automatic shutdown of nuclear power plants;
- (b) if so, the details thereof and the time by which the work is likely to be completed;
- (c) if not, the reasons therefor;
- (d) the details of the centres set up for imparting training for the safety of nuclear plants and prevention of nuclear leakage; and
- (e) the steps taken to contain the effect of the radioactive pollution in sea water and to reduce the ill effects on health?

**Answer**

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (SHRI V. NARAYANASAMY)

(a) to (c) All the Indian Nuclear Power Plants in India have built-in design provisions for automatic shutdown system. These automatic shutdown systems are fail safe which ensure shutdown of the Nuclear Power Reactors within two seconds. The task forces / committee set up in Nuclear Power Corporation of India Limited (NPCIL) and Atomic Energy Regulatory Board (AERB) reviewed the safety of all Nuclear Power Plants (NPPs) in operation and construction in the country in the context of the Fukushima (Japan) incident and found that Indian Nuclear Power Plants are safe against the extreme natural events. One of the recommendations of the task forces / committee was to install systems for initiation of automatic shutdown on sensing seismic activity. Such systems are already in place in respect of Kakrapar Atomic Power Station and Narora Atomic Power Station. A roadmap for installation of the system in remaining Nuclear Power Plants has been prepared for implementation in a time bound manner.

(d) Nuclear Training Centres, fully equipped with latest training aids and state-of-art simulators are functioning at nuclear power plant sites to train personnel on all aspects of safety and operation of nuclear power plants. These centres provide both initial plant systems specific training and continual training for enhanced performance. At the training centres simulators have been installed for hands on training for skill development of operating personnel in handling all types of situations that could possibly arise in the nuclear power plants both during normal operation and in emergencies. The operating personnel are licensed by AERB, after completion of a detailed training, passing of written examination, completion of checklists, and interviews, before they are licensed and authorized to operate nuclear power plants. Re-licensing of the operating personnel is done at stipulated intervals as per AERB guidelines. In addition, the BARC training school also trains engineers in nuclear science and engineering. Homi Bhabha National Institute (HBNI), a deemed university has also been established for higher studies in nuclear science and engineering.

(e) The increase in radiation due to operation of nuclear power plants are a fraction of existing natural radiation at each of the nuclear power plant site and are well within the limits set by the AERB. Monitoring of radioactivity in the neighborhood of nuclear power plants and radiological survey of nearby water bodies (coastal or in land), ground water, food chain including milk, animal products, fruits, vegetables, sea food and fish are performed by Environmental Survey Laboratories to ensure that radioactivity level does not exceed limits stipulated by AERB.