GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:1724
ANSWERED ON:04.08.2010
INSPECTION OF NUCLEAR POWER PLANTS
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Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether review of operation of nuclear power plants is carried out by the Atomic Energy Regulatory Board (AERB);

(b) if so, the details thereof alongwith the names of the nuclear power stations inspected by the Board during 2008-09 and 2009-10;

(c) the details of criteria/norms fixed for such inspection;

(d) the name of plants in which the incident of leakage or discharge of radioactivity beyond and within the limit specified by the AERB reported during the said period;

(e) the steps taken to avoid any impending danger of radioactivity created by these power stations;

(f) whether any study has been conducted to determine the impact of radioactivity on the families residing near these stations;

(g) if so, the findings of such studies; and

(h) the details of remedial measures taken by the Government in this regard?

Answer

THE MINISTER OF STATE FOR SCIENCE & TECHNOLOGY AND EARTH SCIENCES (INDEPENDENT CHARGE), PMO, PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS AND PARLIAMENTARY AFFAIRS. (SHRI PRITHVIRAJ CHAVAN):

(a) Yes, Atomic Energy Regulatory Board (AERB) regularly carries out safety review of nuclear power plants. This is done through the process of licensing, regulatory inspections and regular review by safety committees of AERB.

(b) The details of the inspections carried out at Nuclear Power Plants (NPP) during the financial year 2008-09 and 2009-10 are as follows:

S.No.	Nuclear Power Station	Number of inspections carried out by AERB 2008-09	2009-10
1	Tarapur Atomic Power Station-1&2	2	2
2	Tarapur Atomic Power Station -3&4	2	2
3	Rajasthan Atomic Power Station-1&2	1	3
4	Rajasthan Atomic Power Station -3&4	2	2
5	Madras Atomic Power Station-1&2	2	2
6	Narora Atomic Power Station-1&2	4	2
7	Kakrapar Atomic Power Station-1&2	2	2
8	Kaiga Generating Station-1&2	2	3
9	Kaiga Generating Station -3&4	1	2

(c) These inspections are carried out to verify that the plants are being operated in accordance with the conditions specified in the licenses and to verify compliance with safety requirements. Detailed checklists have been developed by AERB for conducting such inspections. AERB carries out the regulatory inspection of operating nuclear power plants normally twice a year. In addition to these, AERB also undertakes special inspections of the plants in response to any specific event or issue.

(d) There was no case of leakage/ release of activity beyond the specified limits in any of the nuclear power plant during the above period.

(e) There is no significant hazard as the radioactive discharges from all the NPPs were well within the specified limits. NPPs are designed and operated ensuring availability of several barriers to release of radioactivity. However, in order to address the unlikely event of any large release of radioactivity from the plant due to any accident, very detailed emergency response plans have been established in co-ordination with AERB and the state authorities concerned. These preparedness plans are tested through periodic

exercises to check the response of various agencies involved.

(f) All the nuclear power plant sites have Environmental Survey Laboratories (ESL) which continuously monitor the surrounding environment in the public domain to study the impact of radioactive discharges from these plants. The monitoring involves analyses of samples of water, air, soil, sediment, vegetation, milk, fish, meat etc. collected regularly from these areas. In addition, the radiation levels at various locations surrounding the plant are also monitored by dosimeters.

(g) These studies show that the impact of the radioactive discharges from the NPPs in India on the people and environment surrounding these NPPs is insignificant. The radiation exposure to members of the public around these NPPs is on an average less than 5% of the limit of 1 milli-Sievert per year specified by the AERB, which is based on the guidelines of International Commission on Radiological Protection (ICRP). In this context it may be noted that in India, the average radiation dose received by a person in a year from various natural sources is 2. 4 milli-Sievert.

(h) The discharges from the NPPs are very low and do not pose any hazard. Hence, no remedial actions were necessary.