GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

STARRED QUESTION NO:145
ANSWERED ON:22.08.2012
RADIATION AROUND NUCLEAR POWER PROJECTS
Shanavas Shri M. I.

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) the salient features of the studies conducted by the Nuclear Power Corporation of India Limited (NPCIL) on the ill effects of radiation on the villages in the vicinity of nuclear power plants and employees working in these plants along with the time period of such studies;

(b) the number of nuclear power plants covered under the said studies;

(c) whether the studies have established any linkage between existence of nuclear power units and high incidence of cancer in villages around nuclear power plants and employees working in these plants; and

(d) if so, the details thereof and the corrective follow up action taken/being taken by the Government in this regard?

Answer

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

(a) to (d) A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO.145 FOR ANSWER ON 22.08.2012 BY SHRI M.I. SHANAVAS REGARDING RADIATION AROUND NUCLEAR POWER PROJECTS

(a)&(b) Radiation dose levels around nuclear power plants are negligibly higher than those arising out of natural background radiation. The average radiation dose received by an individual from natural background is 2400 micro-Sievert per year. The radiation levels at Indian nuclear power plant sites are higher from the average natural background level yielding an additional radiation dose of 1 to 25 micro-Sievert per year at a plant boundary. Therefore, there are no ill effects of radiation around nuclear power plants. Epidemiological surveys for health assessment in respect of employees working in close proximity to radiation and their families at each of the operating nuclear power plants have been carried out. Nearby villages have been covered in the studies to the extent of employees and their families residing there. The studies were carried out by reputed local medical colleges in association with Tata Memorial Centre (TMC), Mumbai, a premier cancer research centre in the country. These studies comprised filling a questionnaire with respect to demographic, medical data and other relevant details, and carrying out a medical examination. The primary emphasis of these studies was on prevalence of cancer and congenital anomalies (birth defects) among the employees and their families. The studies have been conducted at all the operating nuclear power plants located at the six sites across the country as per the following details:-

Site	Year of study
Tarapur, Maharashtra	1992 to 1994
Rawatbhata, Rajasthan	1995
Narora, Uttar Pradesh	1997
Kakrapar, Gujarat	1995
Kalpakkam, Tamil Nadu	1997 to 1998 & 2006
Kaiga, Karnataka	1998

Epidemiological studies were also conducted for the villagers living in the vicinity of the nuclear power plant sites at Kaiga, Kakrapar and Kudankulam before start of operation of these plants. These form the baseline for comparison with studies at a later date.

(c) No Sir. The studies have established that there has not been any rise in cancer morbidity, birth defects or any other ailments among the employees, who are at work or live in close proximity of nuclear power plants, in comparison to the national average. In addition, the medical examination of occupational workers at each of the operating nuclear power plant is carried out every year in accordance with regulatory requirement prescribed by Atomic Energy Regulatory Board (AERB). The scientific data of these annual medical examinations collated and analysed by Nuclear Power Corporation of India Limited (NPCIL), during 1995 to 2010 (16 years) has found that the cancer prevalence among the employees is lower, at 54.05 per lakh, compared to national prevalence of 98.05 per lakh.

(d) Does not arise.