

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:3067
ANSWERED ON:12.12.2012
RADIOACTIVE MATERIAL IN VISAKHAPATNAM
Lagadapati Shri Rajagopal

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether radioactive materials have been found in marine sediments of Visakhapatnam;
- (b) if so, the details thereof;
- (c) whether Bhabha Atomic Research Centre (BARC) has studied the affect of those materials on human beings;
- (d) if so, the details thereof; and
- (e) the extent to which the presence of industries in and around Visakhapatnam contributes to this situation?

Answer

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

(a)&(b) Yes, Sir. However, level of naturally occurring radio-nuclides such as Uranium and Thorium and their daughter products found in marine sediment samples in Visakhapatnam are well within the range of concentrations generally found at other locations in the country. The typical concentrations of radio-nuclides found in marine sediment samples at Visakhapatnam are indicated below:

Radio-nuclides	Observed radioactivity measured concentration range (part per million)	Indian average radioactivity concentration (part per million)
238U (Uranium-238)	1.5 - 3.8	1 - 5
226Ra (Radium-226)	2.9×10^{-7} - 15×10^{-7}	8×10^{-7} - 16×10^{-7}
232Th (Thorium-232)	7.7 - 36.3	6- 40

(c)&(d) No, Sir. The abundance of these radionuclides in marine sediments of Visakhapatnam is well within the national average. Hence, it has not been considered necessary to study their health effects.

(e) The industries located in and around Visakhapatnam are dealing with non-radioactive materials. The naturally occurring radioactivity levels in marine sediment of Visakhapatnam are within the national average. Hence, it could be concluded that the industries in and around Visakhapatnam do not contribute to such presence of naturally occurring radioactive materials.