

Monazite minerals in Andhra Pradesh

3847. SHRI DEVENDER GOUD T. : Will the PRIME MINISTER be pleased to state :

- (a) whether it is a fact that Andhra Pradesh has the highest Monazite mineral reserves in the country;
- (b) if so, the quantity of Thorium that would be extracted from the above reserves;
- (c) the efforts that the Indian Rare Earths Limited is making to explore the above reserves; and
- (d) the projects requirement of Thorium by 2020?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR. JITENDRA SINGH): (a) Yes, Sir.

(b) As of May, 2014, exploration activities carried out by Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy (DAE), has led to the establishment of 3.72 million tonnes of Monazite in the Beach Sand Mineral (BSM) deposits of Andhra Pradesh, which is the highest in India. The above resources of Monazite (3.72 million tonnes) is estimated to contain about 0.33 million tonnes of thorium oxide (ThO_2), which corresponds to about 0.29 million tonnes of thorium metal.

(c) Indian Rare Earth Limited (IREL) a 100% owned Government of India Undertaking under the administrative control of the DAE, is engaged in mining and separation of beach sand minerals. IREL produces Monazite in its plants at Manavalakurichi in Tamil Nadu, Chavara in Kerala and OSCOM in Odhisa.

IREL has set up Monazite processing plant at OSCOM, Odhisa to process 10,000 tonnes of Monazite per annum. Thorium is a by-product along with rare earth chloride and tri-sodium phosphate as main product from this plant.

Besides, IREL has also set up plant facilities at its unit in Rare Earths Division (RED), Aluva to process the rare earth chloride from Monazite Processing Plant (MoPP) to produce separated high pure rare earths. The plant has been commissioned.

(d) The annual requirement of thorium oxide for the 300 Mwe Indian Advanced Heavy Reactor will be about five tons, with a one-time requirement of less than sixty tons for the initial core.