

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:248

ANSWERED ON:25.02.2015

ATOMIC FUEL

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Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) the quantum of atomic fuel/uranium required for atomic power plants operating and under construction in the country;
- (b) whether the country is self-reliant in the field of atomic fuel/uranium;
- (c) if so, the details thereof and the details of locations where uranium deposits have been found during the last three years and the current year, State-wise;
- (d) the measures being taken to find out new uranium reserves/mines in the country; and
- (e) the steps taken or being taken by the Government for acquisition of uranium mines in other countries to ensure constant supply for atomic reactors in the country?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH) :

- (a) The approximate requirements of nuclear fuel/ uranium for Pressurised Heavy Water Reactors are as given below:

Unit Capacity (MW)	Annual Fuel Requirement at 85% Capacity Factor (tonnes UO ₂)
220	45
540	100
700	125

- The approximate requirements of low enriched uranium for Light Water Reactors are as given below:

Unit Capacity (MW)	Annual Fuel Requirement (tones low enriched uranium)
160	6 (at 85% CF)
1000	25 (at 90% CF)

(b)&(c) At present, there is a demand-supply mismatch of domestic uranium. Uranium Corporation of India Ltd. (UCIL) a Public Sector Undertaking of Department of Atomic Energy is operating seven uranium mines and two process plants in Jharkhand. A large under-ground mine and process plant at Tummalapalle in Andhra Pradesh has been constructed and expected to start production soon. Plan for capacity addition of this mine and plant has already been initiated. Production from these new projects are expected to enhance the indigenous uranium supply and substantially ease the uranium fuel demand-supply gap for indigenous reactors.

(d) Atomic Minerals Directorate (AMD) has so far established 2,14,158 tonne of U₃O₈ equivalent to 1,81,606 tonne of Uranium in various States of India. Following extensive work for exploration of Uranium in the country, the identified in-situ reserves of uranium in the country have been progressing.

(e) Department is examining various aspects of stock piling of uranium; and the relevant aspects of acquiring mining stake abroad would be examined thereafter.