

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.1985
TO BE ANSWERED ON 04.08.2016

ATOMIC FUEL REQUIRED FOR ATOMIC PLANTS IN THE COUNTRY

1985. SHRI PARIMAL NATHWANI:

Will the PRIME MINISTER 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 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 resources/mines in the country; and
- (e) the steps taken or being taken by 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 atomic fuel/uranium for Pressurised Heavy Water Reactors (PHWRs) are as given below:

Unit Capacity (MW)	Annual requirement at 85% Capacity Factor (tons UO ₂)
220	45
540	100
700	125

The approximate requirements of atomic fuel/uranium for Light Water Reactors (LWRs) are as given below:

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

- (b) No, Sir. The Government has taken measures to augment domestic uranium supply by opening of new mines and processing facilities and importing fuel for reactors under International Atomic Energy Agency (IAEA) Safeguards.
- (c) Intensive exploration and prospecting in existing uranium deposits by Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of DAE, augmented the uranium resource by 49,877 t U₃O₈ during the period 2013-14 to 2016-17 (up to June, 2016) as given below:

State	District	Name of the deposit	Augmentation of U ₃ O ₈ (tonnes)				
			2013-14	2014-15	2015-16	2016-17	Total
Andhra Pradesh	Kadapa	Tummalapalle – Rachakuntapalle	9501	9156	13566	5000	37223
Jharkhand	East Singhbhum	Jaduguda (Recasting)	1338	-	-	-	1338
		Bhatin (Recasting)	550	-	-	-	550
		Narwapahar extension	506	687	-	-	1193
		Singridungri-Banadungri	1331	3132	290	-	4753
	Saraikela-Kharswan	Bangurdih	-	-	60	-	60
Meghalaya	West Khasi Hills	Lostoin	98	-	-	-	98
		Wahkut	194	321	1860	-	2375
		Umthongkut	-	110	-	-	110
Rajasthan	Sikar	Rohil	1149	770	258	-	2177
Grand total			14,667	14,176	16,034	5,000	49,877

- (d) In order to discover new atomic minerals deposits, including uranium and augment the atomic mineral resources of the country, the Government has formulated new projects involving ₹831.48 crore during XII Plan period (2012-2017). The exploration and research activities of AMD have also been enhanced, which include increase in (i) drilling meterage by departmental rigs, (ii) heliborne and ground geophysical surveys, and (iii) analytical support with the help of latest state-of-the-art instruments/equipments.
- (e) We are currently importing uranium at very attractive prices. Steps have been taken to keep adequate stock of uranium to ensure constant supply for atomic reactors in the country.
