

(c) the quantum of electricity in megawatt produced through atomic energy, State-wise?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR. JITENDRA SINGH): (a) Nuclear power plants generating electricity are located in Gujarat, Karnataka, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh.

(b) The States where start of work on new nuclear power plants is planned in the Twelfth Five Year Plan are Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu.

(c) The generation-capacity of electricity through atomic energy, State-wise, is given below:

State	Units	Capacity in MW
Maharashtra	TAPS 1 to 4	1400
Rajasthan	RAPS 2 to 6	1080
Tamil Nadu	MAPS 1&2 & KKNPP-1	1440*
Uttar Pradesh	NAPS 1&2	440
Gujarat	KAPS 1&2	440
Karnataka	KGS 1 to 4	880

* KKNPP-1 (1000 MW) is currently generating infirm power

Nuclear trade with US

907. SHRI D.P. TRIPATHI: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Government is planning to step ahead for Nuclear trade with US, if so, the details thereof; and

(b) the guidelines India has to follow?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR. JITENDRA SINGH): (a) and (b) An agreement between Govt. of India and the Government of United States concerning Peaceful Uses of Nuclear Energy was signed on 10 October 2008. A Pre-Early Works Contract has been concluded between Nuclear

Power Corporation of India Limited (NPCIL) and Westinghouse Electric Company (WEC) of the US with regard to the construction of two nuclear power reactors at Mithi Virdi in Gujarat. This Pre-Early Works contract is not specific for a particular site. The civil nuclear cooperation with US is governed by the Agreement between the two countries, signed on October 10, 2008.

Metals from rare earths

908. SHRI K.N. BALAGOPAL: Will the PRIME MINISTER be pleased to state:

(a) whether Government has any plan to start the production of Titanium Metal and other value added materials from Rare Earths, if so, the details thereof; and

(b) the places where the Rare Earth Units are presently functioning in the country and the products that are coming out from these units?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (DR. JITENDRA SINGH): (a) Yes, Sir. Research to develop Titanium Metal production technology in the country was initially carried out in Bhabha Atomic Research Centre ((BARC), a constituent unit of Department of Atomic Energy (DAE). Basing upon this technology, a pilot plant was set up in Nuclear Fuel Complex, Hyderabad, (an industrial unit of DAE). This technology was subsequently transferred to Defence Metallurgical Research Laboratory (DMRL), Ministry of Defence, who successfully operated a pilot plant. Based upon the same technology, Department of Space in association with Kerala Minerals and Metals Ltd. (KMML), a Public Sector Undertaking under the Government of Kerala, is now operating an industrial scale unit for production of Titanium Metal.

As far as, production of value added material from Rare Earths is concerned, Indian Rare Earths Ltd. (IREL), a Public Sector Unit, under the Department of Atomic Energy, has set up a monazite processing plant (MoPP) at OSCOM, Odisha to process 10,000 tons per annum (tpa) of monazite. The plant will be producing mixed rare earth chloride (MRCL) among other products. IREL has also commissioned its High Pure Rare Earths (HPRE) plant at Rare Earths Division (RED), Aluva, Kerala to process MRCL and produce high purity separated rare earths.

Besides, IREL has also entered into a Memorandum of Understanding (MoU) with BARC, DMRL and International Advanced Research Centre for Powder Metallurgy