

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION NO. 59*
TO BE ANSWERED ON 02.12.2015

COASTAL NUCLEAR POWER PLANTS

*59:. SHRI SADASHIV LOKHANDE

Will the PRIME MINISTER be pleased to state:

- (a) whether the Government has drawn any guidelines for setting up nuclear power plants in the coastal areas of the country and if so, the details thereof;
- (b) whether the Government proposes to set up more nuclear power plants in the coastal areas of the country and if so, the details thereof, coastal area-wise;
- (c) whether nuclear power plants situated on coastal areas are able to withstand natural calamities like Tsunami, Earthquake, etc. and if so, the details thereof and if not, the reasons therefor along with the measures taken in this regard; and
- (d) the quantum of power generated/ likely to be generated by each of the said power plants?

ANSWER

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

(a) to (d) A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO *59 FOR ANSWER ON 02.12.2015 BY SHRI SADASHIV LOKHANDE REGARDING COASTAL NUCLEAR POWER PLANTS.

- (a) Yes Sir; The setting up of nuclear power plants in the country, including at the coastal locations, is carried out in accordance with the criteria laid down in the Code of Atomic Energy Regulatory Board (AERB) titled 'Site Evaluation of Nuclear Facilities'.
- (b) Yes Sir; presently, seven power plants are in operation in coastal areas and four more under various stages of implementation as detailed below:

Coastal Location	Nuclear Power Plant	Capacity (MW)	Status
Tarapur, Maharashtra	Tarapur Atomic Power Station - 1&2	2x160	In operation
	Tarapur Atomic Power Station - 3&4	2x540	
Kalpakkam, Tamil Nadu	Madras Atomic Power Station - 1&2	2x220	
Kudankulam, Tamil Nadu	Kudankulam Nuclear Power Plant Unit -1	1x1000	Under Commissioning
	Kudankulam Nuclear Power Plant Unit – 2	1x1000	
Kalpakkam, Tamil Nadu	Prototype Fast Breeder Reactor(PFBR)	1x500	
Kudankulam, Tamil Nadu	Kudankulam Nuclear Power Plant Units - 3&4	2x1000	Financial sanction/administrative approval received

The Government has also accorded 'in-principle' approval for sites to setup 1000 MW or higher capacity Light Water Reactors at the coastal locations in a phased manner, starting with setting up a pair of reactors in the first phase.

The details of these reactors planned to be set up are as follows:

Coastal Location	Nuclear Power Plant	Capacity (MW)
Jaitapur, Maharashtra	Jaitapur Nuclear Power Project (JNPP-1&2)	2 x 1650
Kovvada, Andhra Pradesh	Kovvada, 1 & 2	2 x 1500
Chhaya Mithi Virdi, Gujarat	Chhaya Mithi Virdi, 1&2	2 x 1100
Haripur, West Bengal	Site is approved for 6 x 1000* MW. Details to be worked out.	
Kalpakkam, Tamil Nadu	Fast Breeder Reactor(FBR – 1&2) [§]	2 x 500

* Nominal Capacity [§]: Pre-project activities are being taken up.

(c) Yes Sir; The technical assessment and provisions to withstand the extreme natural events like Earthquake, Tsunami etc. are considered at every stage of nuclear power plant starting from siting, design, construction, commissioning and operation.

Design features and provisions are employed to withstand extreme natural events like earthquake & tsunami. These features include earthquake resistant design, provision of seismic switches to shutdown the reactor on sensing earthquake, location of safety buildings above maximum flood level, shore protection measures, etc.

Further to this, all the safety related equipment are located at still higher elevations to prevent submergence of these from the possible flooding.

(d) The power generation capacity of the nuclear power plants currently located and planned to be setup at coastal locations is given as under:

Coastal Location	Nuclear Power Plant	Capacity (MW)	Status
Tarapur, Maharashtra	Tarapur Atomic Power Station - 1&2	2x160	In Operation
	Tarapur Atomic Power Station - 3&4	2x540	
Kalpakkam, Tamil Nadu	Madras Atomic Power Station - 1&2	2x220	Under Commissioning
	Prototype Fast Breeder Reactor (PFBR)	1X500	
Kudankulam, Tamil Nadu	Kudankulam Nuclear Power Plant Unit -1	1x1000	In Operation
	Kudankulam Nuclear Power Plant Unit - 2	1x1000	Under Commissioning
	Kudankulam Nuclear Power Plant Units - 3&4	2x1000	Project Approved
	Kudankulam Nuclear Power Plant Units - 5&6	2x1000	
Jaitapur, Maharashtra	Jaitapur Nuclear Power Plant Units - 1&2	2x1650	Reactors planned in near to medium term
Chhaya Mithi Virdi, Gujarat	Mithi Virdi Units - 1&2	2 x1100	
Kovvada, Andhra Pradesh	Kovvada Units -1&2	2 x1500	
Kalpakkam, Tamil Nadu	Fast Breeder Reactor - 1&2	2 x500	
Haripur, West Bengal	Haripur Units -1&2	Site is approved for 6 x 1000* MW. Details being worked out.	

* Nominal Capacity.
