GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO-1283
ANSWERED ON 31/07/2025

STATUS AND IMPACT OF ATOMIC POWER GENERATION IN INDIA

1283. SHRI NARAIN DASS GUPTA

Will the PRIME MINISTER be pleased to state:-

(a) number of operational, under-construction nuclear power plants in India, along with their installed and proposed capacities, State-wise and unit-wise;

(b) whether periodic safety audits and risk assessments are conducted at nuclear power plants, and if so, the major finding of such audits in the last five years;

(c) status and method of radioactive waste disposal and storage at each plant, along with steps taken to ensure environmental safety; and

(d) number of personnel and civilians affected by radiation exposure near atomic power installations, details of medical treatment provided in public and private facilities, and the compensation awarded to them, unit-wise and State-wise?

ANSWER

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

(a) The details are given in Annexure.

(b) Yes. There are no major findings in the last five years.

(c) The wastes generated during the operation of nuclear power plants are of low and intermediate activity level and are managed at the dedicated Waste Management Facilities located at each site. These wastes are appropriately treated, concentrated and subjected to volume reduction. The concentrates are immobilized in inert materials like cement, bitumen, polymers etc. and stored in specially constructed structures (near surface disposal facilities) located at the site under monitoring. The treated liquids and gases are diluted and discharged under continuous monitoring, ensuring that the discharges are well within the stipulated limits set by Atomic Energy Regulatory Board (AERB). The radioactivity level of the stored wastes reduces with time and by the end of the plant life, falls to very low levels. The releases are also monitored by the AERB.

As regard to safety, nuclear power in the country has an impeccable safety record. The monitoring of various environmental matrices around nuclear power plants have shown that the radiation dose due to the plants is a negligible fraction of the natural background. Studies by reputed medical institutions have also shown that there are no adverse effects of the operation of the nuclear power plants on the plant personnel and people living in the vicinity of the plants.

(d) Does not arise in view of 'c'.

*****

ANNEXURE

(1) Nuclear Power Plants in Operation

State	Location	Unit	Capacity (MW)
Maharashtra	Tarapur	TAPS-1	160
		TAPS-2	160
		TAPS-3	540
		TAPS-4	540
Rajasthan	Rawatbhata	RAPS-1*	100
		RAPS-2	200
		RAPS-3	220
		RAPS-4	220
		RAPS-5	220
		RAPS-6	220
		RAPS-7	700
Tamil Nadu	Kalpakkam	MAPS-1	220
		MAPS-2	220
	Kudankulam	KKNPP-1	1000
		KKNPP-2	1000
Uttar Pradesh	Narora	NAPS-1	220
		NAPS-2	220
Gujarat	Kakrapar	KAPS-1	220
		KAPS-2	220
		KAPS-3	700
		KAPS-4	700
Karnataka	Kaiga	KGS-1	220
		KGS-2	220
		KGS-3	220
		KGS-4	220

'*' RAPS-1 (100 MW) is under extended shutdown.

*****

(2) Nuclear Power Projects under Construction/ Pre-Project Activities

State	Location	Project	Capacity (MW)
Projects under Construction			
Rajasthan	Rawatbhata	RAPP-7[#]&8	2 X 700
Tamil Nadu	Kudankulam	KKNPP-3&4	2 X 1000
		KKNPP-5&6	2 X 1000
	Kalpakkam	*PFBR*[&]	1 X 500
Haryana	Gorakhpur	GHAVP-1&2	2 X 700
Projects Under Pre-project Activities			
Karnataka	Kaiga	Kaiga-5&6	2 X 700
Haryana	Gorakhpur	GHAVP– 3&4	2 X 700
Madhya Pradesh	Chutka	Chutka-1&2	2 X 700
Rajasthan	Mahi Banswara	Mahi Banswara-1&2*	2 X 700
		Mahi Banswara-3&4*	2 X 700

 # RAPP-7 (700 MW) has already commenced commercial operation since April 15, 2025.
& Implemented by BHAVINI
**Assigned to Anushakti Vidyut Nigam Limited (ASHVINI)*

*****