## GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY LOK SABHA UNSTARRED QUESTION NO. 5477 TO BE ANSWERED ON 28.03.2018

## POWER GENERATED FROM NUCLEAR POWER PLANT

5477. Dr. C. GOPALAKRISHNAN: SHRI C.S. PUTTA RAJU:

Will the PRIME MINISTER be pleased to state:

- (a) the total power generated from Nuclear Power Plants (NPP) in the country during each of the last three years, NPP-wise; and
- (b) the quantum of by-product/nuclear waste generated from these plants during the said period, NPP-wise?

## **ANSWER**

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

- (a) The details are attached as Annexure.
- (b) The wastes generated at the nuclear power stations during the operation of Nuclear Power Plants (NPPs) are of low and intermediate radioactivity level. Typically, the quantity of low and intermediate level waste to be stored at site is about 0.15 cubic meters/year/MW. 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 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 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.

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## Annexure

State	Location	Unit	Capacity	Generation (in Million Units, MU) <sup>\$</sup>		
			(MW)	2014 – 15	2015 – 16	2016 – 17
Maharashtra	Tarapur	TAPS-1	160	718	786	1236
		TAPS-2	160	1297	500	935
		TAPS-3	540	4545	4530	4159
		TAPS-4	540	3713	4573	4530
Rajasthan	Rawatbhata	RAPS-2	200	1282	1226	1106
		RAPS-3	220	1720	1845	1618
		RAPS-4	220	1995	1668	1936
		RAPS-5	220	1628	1950	1715
		RAPS-6	220	1109	1773	1096
Uttar Pradesh	Narora	NAPS-1	220	1341	1803	1655
		NAPS-2	220	1550	1630	1724
Gujarat	Kakrapar	KAPS-1	220	1943	1608	##
		KAPS-2	220	1586	421	##
Karnataka	Kaiga	KGS-1	220	1695	1918	1742
		KGS-2	220	1450	1834	1708
		KGS-3	220	1567	2078	1063
		KGS-4	220	1751	1842	2021
Tamil Nadu	Kalpakkam	MAPS-1	220	1318	1861	1465
		MAPS-2	220	1299	1349	1739
	Kudankulam	KKNPP-1	1000	4330*	2261	6212
		KKNPP-2	1000			2339**
Total Generation (MUs)				37837	37456	39999

The generation figures are rounded to nearest integer.

<sup>\*</sup> KKNPP-1 Generation Details: Infirm Power for 2014-15 (up to December 30, 2014) = 2243 MUs and Commercial Power Generation for 2014-15 (from December 31, 2014) = 2087 MUs.

<sup>\*\*\*</sup> KAPS-1&2 have been taken in project mode for Enmasse Coolant Channel Replacement (EMCCR) and Enmasse Feeder Replacement (EMFR) activities from August 01, 2016 onwards.

<sup>\*\*</sup> KKNPP-2 generated about 2327 MUs of infirm power during the year 2016-17.