

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO.1442
TO BE ANSWERED ON 10.03.2016
DISPOSAL OF NUCLEAR WASTE

1442. SHRI VIVEK GUPTA:

Will the PRIME MINISTER be pleased to state:

- (a) whether Government has made any assessment of the quantity of nuclear waste produced by nuclear power plants in the country, if so, the details thereof, plant-wise and State-wise;
- (b) the method adopted by Government for disposal of nuclear waste; and
- (c) whether safety audits are conducted at various plants to mitigate risks, if so, the details of the same, plant-wise?

ANSWER

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

- (a)&(b) Yes, Sir. A comprehensive radioactive waste management is established taking into account the operational capability under the supervision of an independent regulatory agency. The radioactive solid wastes generated during operation and maintenance of nuclear power plants are segregated and volume reduced prior to its disposal. Disposal of waste is carried out in specially constructed structures such as stone lined trenches, reinforced concrete trenches and tile holes. These disposal systems are designed on multi-barrier principle for ensuring effective containment of radioactivity. The areas where the disposal structures are located are kept under constant surveillance with the help of bore-wells laid out in a planned manner. This policy is on par with international practices following the guidelines of International Atomic Energy Agency (IAEA). The quantity of low and intermediate level waste to be stored at site is about 0.15 cubic meters/year/MW.
- (c) Yes, Sir. All the power plants are subjected to detailed safety reviews and inspection by Atomic Energy Regulatory Board (AERB) during all stages, namely siting, construction, commissioning and operation. The plants are licensed for operation only after satisfactory review of design, construction and commissioning, to demonstrate compliance with the specified safety requirements, including the aspects related to waste generation, its safe management and disposal. The

safety requirements are specified with the objective of prevention of accidents and to mitigate the consequences of the accidents should they occur, and it is ensured that the risks are minimised.

During operation of the plant, AERB conducts regular inspections and safety reviews to verify that the plant continues to comply with the specified safety requirements. The license for operation of the nuclear power plants have a maximum validity period of five years. Renewal of this license requires an in depth safety review, which involves all safety aspects including comparison with the current safety norms, aging aspects and operating experience.

The plant wise status of the validity of the current operating license based on the latest such reviews for the nuclear power plants is as follows:-

S.No.	Name of the Plant	Period by which next review to be completed
1.	Tarapur Atomic Power Station (TAPS), Maharashtra – 1&2	March 2016
2.	Tarapur Atomic Power Station (TAPS), Maharashtra – 3&4	August 2016
3.	Rajasthan Atomic Power Station (RAPS), Rajasthan – 1&2	December 2016
4.	Rajasthan Atomic Power Station (RAPS), Rajasthan – 3&4	October 2017
5.	Rajasthan Atomic Power Station(RAPS), Rajasthan – 5&6	May 2016
6.	Madras Atomic Power Station (MAPS), Tamil Nadu -1&2	June 2016
7.	Narora Atomic Power Station (NAPS), Uttar Pradesh – 1&2	June 2018
8.	Kakrapar Atomic Power Station (KAPS), Gujarat – 1&2	July 2019
9.	Kaiga Generating Station (KGS), Karnataka – 1&2	May 2017
10.	Kaiga Generating Station (KGS), Karnataka – 3&4	April 2018
11.	Kudankulam Atomic Power Project, Tamil Nadu - 1	July 2020
